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# The Archaeology of Navajo Origins

Edited by  
Ronald H. Towner

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## PREFACE

This volume is derived from a symposium entitled “Changing Perceptions of Navajo Culture: The Archaeology of the Pre-Fort Sumner Period” presented at the 58th meeting of the Society for American Archaeology in St. Louis, Missouri, in 1993. Although interest in Navajo material remains began early in this century, Southwestern archaeology has been, and continues to be, dominated by studies of the Anasazi, Hohokam, and Mogollon. Navajo studies have usually been conducted by cultural anthropologists and only rarely have involved Navajo history prior to the reservation period.

The little knowledge that exists about the Navajo prior to A.D. 1868 has not been summarized in a single volume since the early 1960s. Discussions and data concerning Navajo archaeology are uncommon, and usually have been confined to the cultural resource management “gray literature.” Thus, interested scholars have encountered gaps in the data that could be filled only by long hours of library searching, letter writing, and report purchasing.

A dramatic expansion of interest in and research on Navajo archaeological sites within the last decade is forcing archaeologists, anthropologists, and historians to reevaluate their views on Navajo culture, origins, and interaction with non-Navajos prior to the Fort Sumner incarceration. Historic Preservation and Cultural Resource Management legislation has prompted

examination of many Navajo sites, and the resulting data have yet to be synthesized. The papers in this volume attempt to fill some of that void. They reflect the increasing interest among scholars and the Navajo in addressing questions involving the origins and history of the United States' largest Native American group.

All of the papers discuss archaeological data, but most incorporate historical and ethnographic information as well. One of the goals of the volume has been to utilize a source of information often ignored by archaeologists: the Navajo themselves. Several of the papers incorporate the

Navajo view of their past as well as archaeological data to better infer past human behaviors that created the archaeological record. This is an encouraging sign and one that I hope will continue.

The volume does not present a unified view of Navajo archaeology or Navajo culture history and adaptation. There is no such consensus, and I believe it is important for different viewpoints to be included in this “state of the field” overview. Navajo archaeology is an exciting and dynamic field, and the papers in this volume reflect that dynamism. Several of the papers propose substantial, even radical, revisions of how we view the Navajo past. I certainly believe that these papers will be a major source of information for years to come; I doubt, however, that the conclusions in the papers will remain unchanged for any substantial length of time. That is, of course, how it should be.

Many people share the credit for this book. Several people presented papers in the symposium that, for one reason or another, are not in the book. This does not mean the papers were not good; quite the contrary, the symposium was a success in its own right and the papers gave all of us new insights. The authors in the volume receive my greatest respect and gratitude. They put up with my constant hounding and nit-picking about deadlines and such, usually when they were in the middle of field seasons or under other outside pressures. I think all the papers are valuable contributions and it was a pleasure to work with everyone involved. Editing and compiling the volume was supported by a National Science Foundation Grant

(No. DBS-9002235) to the Laboratory of Tree-Ring Research, University of Arizona. David R. Wilcox and Patrick Hogan read and commented on earlier versions of the volume; their insightful comments and thorough critiques provided valuable feedback to all the authors (and the editor) and resulted in a much stronger volume. Finally, the staff at the University of Utah Press, particularly Jeff Grathwohl, was extremely helpful and encouraging.

RONALD H. TOWNER  
TUCSON 1995

# I ARCHAEOLOGICAL CONCEPTS OF NAVAJO ORIGINS



1

## Questions and Problems in Pre-Fort Sumner Navajo Archaeology

Ronald H. Towner

Jeffrey S. Dean

### Introduction

The Navajo people (Diné) currently are the largest single group of Native Americans in the United States, with a population that exceeds 200,000. They occupy what is often referred to as a "sprawling" reservation in the Four Corners states of Arizona, Utah, and New Mexico. Such has not always been the case, however. Little more than a century ago, the Navajo numbered less than 15,000, and had just returned from four years of incarceration at Fort Sumner in eastern New Mexico. Although much has been written about the Navajo way of life and success since their return from Fort Sumner in 1868, the Navajo past prior to that time remains relatively unknown. Yet the modern successes of the Navajo are deeply rooted in their ability to adapt to changing environments, both physical and social. Only through detailed examination of the archaeological, ethnographic, and historical data can we explain these successes in terms of cultural processes.

The Navajo have been important subjects in anthropological research for more than one hundred years (Kluckhohn 1948; Matthews 1897; C. Mindeleff

1898; Reichard 1928; Wyman 1950; Witherspoon 1983). The archaeology of Navajo sites, however, has, until quite recently, been studied by relatively few individuals. Throughout much of this century, early Navajo culture history and adaptation have been defined in terms of linguistic models, limited historical documents, and sparse archaeological research. Much of what is known about Navajo culture is derived from historical documents and ethnographies that discuss the period after the

Navajo's incarceration at Fort Sumner. In addition, most descriptions of Navajo culture by early ethnographers and anthropologists stressed the influences of other cultures on the Navajo.

This introductory chapter serves three major purposes. First, we provide a summary of Navajo history as it is known from historical documents. It is by no means an exhaustive history, but provides the necessary background for understanding the context of Navajo archaeological studies. Second, a brief summary of the major efforts of Navajo archaeology is presented to characterize the models and data that have guided Navajo archaeology for much of this century. Again, the summary is necessarily brief, and additional information is available in the references. Finally, four major themes that continue to guide research on Navajo archaeological remains are outlined. These themes, although not always concurrent with the prevalent theories of American archaeology, demonstrate the complexity of recovering the relatively recent Navajo past in all its richness and diversity. Within these contexts, however, are lessons about the reliability of historical references, the utility of phase-based chronologies, and the incorporation of different types of data into synthetic models of cultural adaptation that can be applied to other archaeological remains.

## Navajo History

Early Spanish documents provide glimpses of Navajo culture and history, but often must be interpreted within the context of Spanish objectives and the types of

Navajo-Spaniard interaction that occurred. Because the Navajo lived, for the most part, on the edges of the Spanish empire, references to them are sporadic and often ambiguous. Interaction most often took the form of raids or other military encounters, although there are a few references to Navajo trade with nearby Puebloan groups.

When Coronado's Entrada encamped near the Rio Grande in 1541, there were seminomadic bison hunters living on the eastern plains of New Mexico. Historians generally agree that one of these groups, the "Querechos," were Athapaskan speakers, possibly ancestral to the Navajo. The Querechos lived in skin tents, used dogs to carry gear, hunted bison, and traded the meat and hides to various pueblos (Hammond and Rey 1940). Forty-two years later, in 1583, Antonio de Espejo met a group of Querechos near Mount Taylor and received a gift of tortillas from them (Hammond and Rey 1966). When Juan de Oñate colonized New Mexico in 1598, he assigned a priest to the Jemez and all the nearby "Apaches and Cocoyes" (Forbes 1960). These brief references may indicate early Apacheans living in the vicinity of various pueblos both east and west of

the Rio Grande, but the identification of these groups as ancestral Navajo, although commonly assumed, cannot be certain.

The first specific reference to the Navajo was made in 1626 by Father Zárate Salmerón, the priest at Jemez, who indicates that the “Apaches del Nabaxu” lived up the Rio Chama but east of the San Juan (Lummis 1900). Although the term initially may have been a place-name for an area of cornfields, it soon came to designate a large region on either side of the continental divide from the Piedra Lumbre valley on the east to the upper tributaries of the San Juan on the west and the people who occupied that area (Reeve 1956, 1957).

The seventeenth century was one of intermittent conflict between Navajos, Spaniards, Puebloans, Apaches, and various other groups in New Mexico. Raiding for slaves, other booty, and retaliation became a common practice among the various groups. Discontent with the Spanish control of New Mexico culminated in the great Pueblo Revolt of 1680, when the Spaniards were forced to withdraw to El Paso. The extent of Navajo involvement in the uprising is unknown, but the power vacuum created by the Spaniards’ retreat certainly must have aided the Navajo, both economically and politically.

The reconquest of New Mexico by the Spaniards has been viewed as a watershed in Navajo history. Although don Diego de Vargas’s initial reconquest in 1692 had little direct impact, the violent campaigns against the Pueblos in 1694 and crushing of the abortive revolt of 1696 created severe population

dislocations in several areas (Hogan 1991). Both archaeologists (Hester 1962a; Kidder 1920) and historians (Forbes 1960) traditionally have viewed the Navajo as beneficiaries of these events. The “refugee hypothesis” (Hogan 1991) suggests that large numbers of Puebloans fled the Spanish Reconquest and lived with the Navajo, influencing almost every aspect of Navajo life (Hester 1962a:89).

During most of the 1700s, the Navajo and Spaniards were on relatively peaceful terms (Reeve 1959). The same cannot be said, however, of the Navajo and Ute. Beginning about 1716, Ute and Comanche raiding began to force an accommodation between the Navajo and Spaniards. It may have also played an important role in changing Navajo architectural, settlement, and subsistence patterns. Ute depredations continued throughout the mid-1700s and probably forced the abandonment of the Dinétah homeland by the mid-1750s (Brugge 1983). The Navajo even expressed an interest in Christianity, and a short-lived mission was built at Cebolleta in 1749 (Hackett 1937). It was abandoned in 1750, however, primarily because the Navajo showed little interest in becoming pueblo-dwelling farmers (Reeve 1959:27).

The Domínguez and Escalante expedition of 1776 provides the first detailed account of the extent of Navajo territory. Although the Franciscan Fathers circumnavigated most of the Navajo-occupied areas, the resulting Miera y Pacheco map (see Schaafsma, this volume, Figure 2.1) shows the Navajo living south of the San Juan River almost as far west as the Hopi villages. A few years later, in 1786, the Navajo were said to consist of five geographic divisions: San Mateo, Cebolleta, Chuska Mountain, Ojo del Oso, and Canyon de Chelly (Bartlett 1932). By the end of the eighteenth century, ten divisions were recognized: Sevolleta, Chacoli, Guadalupe, Cerro Cabezon, Agua Salada, Cerro Chato, Chusca, Tunicha, Chella, and Carrizo (Matson and Schroeder 1957).

The nineteenth century was a time of dramatic change in world affairs that slowly but surely impacted the Navajo. Resumption of hostilities with the Spaniards in the late 1700s resulted in Narbona's massacre of more than 115 Navajos in Canyon de Chelly in 1805, after which the Navajo sued for peace (Brugge 1972a). The peace was short-lived, however, and raiding on both sides reinforced long-standing animosities. Pressure by Ute, Comanche, the Spanish army, and "free-lance" Spanish citizens also contributed to a little-discussed, but major, event in Navajo history: the break of the Enemy Navajo (Diné Aná aii). The split occurred in 1818 and resulted in sporadic fighting between the main group of western Navajos who did not want peace with the Spaniards and the eastern group that was more vulnerable to Spanish retribution (McNitt 1972).

After the newly independent Mexican government assumed control of New Mexico, hostilities were an almost constant threat. The Viscarra campaign of 1823 resulted in at least seven Navajo deaths and the capture of seventeen others (Brugge 1964). Additional major campaigns by the Pérez government in 1837 and Armijo in 1839 resulted in the loss of Navajo lives and disrupted the Navajo herding economy, especially in the Canyon de Chelly area (McNitt 1972).

When the United States gained control of New Mexico in 1846, Kearny's Army of the West began hostilities against the Navajo after a brief period of diplomacy failed (Connelly 1907). The establishment of Fort Defiance in 1851 created a major military presence in the heart of Navajo country. The fort served as a base for many military operations against the Navajo and was the scene of a large-scale attack by more than a thousand Navajos on April 30, 1860 (McNitt 1972:382-84). The attack failed, probably because the Navajo lacked an adequate supply of guns. Although Fort Defiance was closed in 1861 because of the Civil War, it was reestablished as Fort Canby in 1863, and served as Kit Carson's base of operations (Bailey 1964).



The Carson campaign of 1863-1864 marked the end of Navajo independence. Using a demoralizing winter-attack strategy, Carson concentrated on the destruction of Navajo food supplies and shelter rather than on direct armed confrontation. The destruction of crops, livestock, hogans, and peach orchards in Canyon de Chelly severely limited the Navajo's ability to wage war (Kelly 1970). The resulting surrender and confinement of 8,354 Navajos at Fort Sumner in eastern New Mexico is one of the darkest periods in their history. Although some managed to escape detection and remain free (Bailey 1964; Kelly 1970), the economic and social disruptions caused by years of warfare and imprisonment forever changed Navajo culture.

### A Brief History of Navajo Archaeology

Archaeological research in the northern Southwest has, and continues to be, dominated by questions concerning the prehistoric Anasazi. Research on Navajo archaeological sites has been sporadic throughout this century and has often been driven by nonarchaeological goals. Although this situation has changed somewhat with the tremendous expansion of archaeology as a result of federal, state, and tribal legislation, Navajo archaeology is still limited by contract-related concerns and the ability of archaeologists to frame their research questions adequately.

All of the papers in this volume rely on past research for either data or hypotheses or both. Each paper details, in some way, portions of previous work, but a

brief overview of Navajo archaeology is necessary to acquaint nonspecialists with previous research on Navajo archaeological remains. Hester's landmark publication (1962a) was able to list every archaeological project concerned with the Navajo; and although such an effort cannot be done easily today, many of the theories and data remain indebted to research conducted prior to 1962.

Navajo archaeology can be said to have begun with Cosmos Mindeleff's description (1898) of the components and construction techniques used in Navajo hogans. It was not until the 1920s, however, that Navajo archaeological remains were examined. A. V. Kidder's article (1920), based on a visit to excavations conducted by Earl Morris in the Upper San Juan drainage, was the first to explicitly discuss Navajo archaeological materials. Kidder's *hypothesis* that the sites were inhabited by both Navajos and Puebloans became a standard interpretation of Navajo culture history.

After Kidder's initial article, Navajo archaeology languished for more than a decade. Publication of the Rabal document (W. W. Hill 1940) and

Dorothy L. Keur's excavations at Big Bead Mesa (1941) and in the Largo-Gobernador area (1944) marked a resumption of interest in Navajo culture history and archaeological sites. Keur used both her own data and Kidder's suggestions to postulate (a) ethnic coresidence by Navajo and Pueblo groups in the Gobernador area and (b) declining Puebloan influence in Navajo culture at the later Big Bead Mesa occupation. She suggested that the Athapaskans entered the Southwest neither through the Great Basin nor Intermontane areas, but probably by way of the High Plains in eastern Colorado and New Mexico (1941:74). She indicates that, after a period of initial contact with Puebloan groups, "at Big Bead Mesa the basic Navaho pattern reasserts itself, though probably with enough changes to seriously modify the original culture, and to make a lasting impression" (1941:71).

Although Malcolm Farmer (1942, 1947) and the Huschers (1942) questioned some of the interpretations put forth by both Kidder and Keur, the basic interpretation of Navajo culture history was established. Subsequent work was guided by the ideas that (a) the Navajo entered the Southwest via the High Plains relatively late in prehistory, probably around A.D. 1500 (but see Haskell 1987 and Perry 1991), (b) Navajo culture was profoundly influenced by contact with Puebloan groups, particularly after the Spanish Reconquest of A.D. 1696, (c) the Navajo expanded out of the Dinétah and, by implication, west of the Chuska Mountains, only after A.D. 1750 in response to drought and Ute pressure, and (d) the Navajo subsistence base

and settlement pattern have changed with each shift in environmental setting.

Two major projects in the 1950s and early 1960s provided abundant archaeological data with which to address issues of Navajo archaeology. Unfortunately, both projects were inspired by nonarchaeological concerns. The Navajo Land Claim (NLC) survey is the largest single project ever undertaken to document the extent and duration of the Navajo occupation of the Southwest. Its primary concern was to support Navajo claims to areas not included in the Navajo reservation. NLC researchers collected data from archaeological sites as far east as Jemez, New Mexico, as far north as Monticello, Utah, as far west as Havasu Canyon, Arizona, and as far south as Reserve, New Mexico. Although the tree-ring data have provided valuable information (Stokes and Smiley 1963, 1964, 1966, 1969; Robinson and Towner 1993), the complete NLC database remains underexploited because of legal restrictions on its dissemination (but see Correll 1979). A few important by-products of the NLC work, however, include *Navajo Pottery and Ethnohistory* (Brugge 1963, 1981b), *The Navajo Exodus* (Brugge 1972b), and Kemrer's dissertation

on western Navajo settlement (1974). Perhaps the most important of these works is *Navajo Pottery and Ethnohistory*. This slender volume provided the first classificatory system for Navajo ceramics and tied ceramic changes to cultural events and processes; it is still the major reference for Navajo ceramic identification.

The Navajo Reservoir Project (Eddy 1966) was one of the largest “salvage archaeology” projects of its time. In terms of Navajo archaeology, the project brought together a group of specialists who established a Navajo cultural chronology and suggested criteria by which Navajo archaeological remains could be identified and classified (Dittert et al. 1961; Hester 1962a; P. Schaafsma 1963; Eddy 1966). Research on Navajo rock art (Schaafsma 1963) also suggested intensive Navajo-Pueblo relationships. Dittert (1958a, 1958b) suggested a cultural chronology that began with the Dinétah phase, a pre-Revolt Navajo occupation of the Navajo Reservoir area. The Dinétah phase, however, was defined on the basis of negative evidence and imprecise dates. It was identified by the absence of specific traits associated with the later Gobernador phase. Only the presence of grayware sherds stratigraphically below a single painted sherd at Todosio Rock Shelter (LA 4298) (Hester and Shiner 1963) and the presence of corn pollen in sediments thought to date between A.D. 1300 and 1700 (Schoenwetter and Eddy 1964) supported the designation of a pre-Revolt Navajo phase. As such, the Dinétah phase possessed neither a type site nor identifiable artifacts with which to compare it to other

Navajo cultural manifestations. Because of these deficiencies, the Dinétah phase was deleted from the final Navajo Reservoir Project summary (Eddy 1966).

In a landmark publication, Hester (1962a) summarized Navajo archaeology and culture history using data from the Navajo Reservoir, Largo-Gobernador, and Big Bead Mesa areas. He suggested, based on historical references, that the Navajo entered the Southwest via the High Plains sometime prior to A.D. 1500 (Hester 1962a:73). Using trait-list comparisons, Hester (1962a:72) rejected the Huschers' contention (1942) that archaeological remains in Southwestern Colorado are Navajo, instead preferring to assign them to a Ute occupation. Through the use of both historical and archaeological data, Hester (1962a:67) described the migration of the Navajo out of the Dinétah and presented the most complete Navajo phase sequence available. His is still the only publication to directly discuss the Cabezon phase in the Big Bead Mesa area. *Early Navajo Migrations and Acculturation in the Southwest*, now more than thirty years old, has guided the interpretation of Navajo archaeological remains for the last three decades.

Shortly after the Navajo Reservoir Project ended, Carlson (1965) published the results of Earl Morris's excavations at several pueblitos in the early 1900s. Although often constrained by missing provenience information, Carlson's summary became one of the most important documents concerning the Gobernador phase of Navajo culture history. Carlson was the first to suggest that the pueblitos were constructed primarily by Navajos for defense against Ute raiding, but the implications of his arguments were largely ignored.

The decade of the 1970s saw four major events in Navajo archaeology, and, for the first time, these events concerned sites outside the Dinétah area. In the mid-1970s, the National Park Service (NPS) instigated archaeological survey and excavation projects in Canyon de Chelly National Monument. The resulting publications (Fall et al. 1981; James 1976; Magers 1976; McDonald 1976) documented (a) an early (pre-1800) Navajo occupation of the canyon, (b) changing settlement patterns in response to Spanish and American military pressures, and (c) changing Navajo social and economic systems throughout the pre-Fort Sumner occupation of the area. James (1976) proposed a phase sequence for the de Chelly Navajo separate from sequences developed east of the Chuska Mountains, and Fall et al. (1981) presented a model of changing Navajo settlement and subsistence patterns in and around Canyon de Chelly.

Farther west, Kemrer's research (1974, 1978) used NLC archaeological and tree-ring data to investigate relationships between Navajo settlement, climatic

variability, and intergroup interactions on southern Black Mesa. The largest single study of Navajo remains in the 1970s, however, was that undertaken by the Black Mesa Archaeological Project (BMAP) in the ninety-square-mile Peabody Coal Company lease area on northern Black Mesa (Oswald 1993; Rocek 1985). Involvement with Navajo archaeology dated from the inception of the project in 1968, while intensive survey and detailed documentation of Navajo sites began in the middle 1970s. More than a thousand Navajo sites were recorded by the end of the last field season in 1983. Because of (a) the relative brevity of the Navajo occupation of the area (the oldest sites date to the first decade of the nineteenth century), (b) high-quality chronological control (provided by dendrochronology, time-sensitive manufactured items, and informant data), and (c) the presence of an indigenous Navajo population, BMAP's approach to Navajo archaeology differed significantly from that in other areas. Instead of building an archaeologically based phase sequence, project archaeologists relied on high-resolution dating to arrange sites on the scale of absolute time, to relate them to historical events, such as the Long Walk, World War I, the influenza epidemic of 1918, the Great Depression,



stock reduction, World War II, and the advent of the coal mine, and to investigate specific aspects of Navajo behavior, such as mobility (Blomberg 1983), seasonality (Rocek 1988), utilization of space (Oswald 1993), and wood use (Russell and Dean 1985).

In the late 1970s, research in the Abiquiu Reservoir District of north-central New Mexico delineated a new aspect of Navajo archaeology. C. F. Schaafsma (1975a and b, 1978, 1979) defined the Piedra Lumbre phase as the earliest archaeological manifestation of the Navajo occupation of the Southwest. The proposed phase linked the Athapaskans (Querechos) seen by Coronado on the High Plains to the later Navajo occupation of the Upper San Juan drainage. Schaafsma (1975a:54-55) identified the sites as Navajo based on the presence of (a) subcircular, single room, single-course masonry structures, (b) associated corrals, (c) trash dumps, (d) interior and exterior hearths, and (e) lithic reduction loci. His position was that these sites represented the first Navajo attempts at pastoralism. The sites lack Navajo ceramics, however, and are only weakly dated to the seventeenth century. Four noncutting tree-ring dates that range from 1668vv to 1760vv provide little temporal control. The ceramics present are all Puebloan types (mostly Tewa wares) and may range from the 1600s until 1900, although two types end prior to A.D. 1750. Schaafsma (1978:18) eventually refined the chronology of the Piedra Lumbre phase as dating between A.D. 1640 and 1710.

Two factors have made many archaeologists reluctant to accept the sites and phase as early Navajo. First, the

limited scope and distribution of the School of American Research publications have made the data difficult for other researchers to use. Full publication of the data is planned in the near future (C. F Schaafsma, personal communication). Second, other researchers (Carrillo 1992; Kemrer 1992; Wozniak 1992) interpret the sites as Tewa sheepherding camps, based on both historic documents and ceramic analyses.

The Piedra Lumbre phase provides one of the key links in models of a late Athapaskan entry into the Southwest. Piedra Lumbre phase sites provide an intermediate geographic and temporal position between Querechos seen on the eastern Plains in the A.D. 1500s and Navajos documented in the Upper San Juan River area in the A.D. 1700s. If the Dinétah phase of the upper San Juan area dates prior to A.D. 1600, therefore, both the Athapaskan entry model of D. R. Wilcox (1981) and the Piedra Lumbre phase of C. F Schaafsma (1979) must be reevaluated. If the Piedra Lumbre phase is valid, however, it constitutes one of the earliest and certainly the most easterly Navajo occupation of the Southwest and supports the late Athapaskan entry model of Wilcox (1981).

Finally, the late 1970s saw the development and growth of widespread cultural resource management projects conducted by the Navajo themselves. Cultural resource management operations connected with the realignment of Navajo Highway 41 on Black Mesa (Russell 1983), with the construction of the Black Mesa and Lake Powell coal-haul railroad through the Klethla Valley and across the Kaibito Plateau (Stebbins 1982), and with logging activities in the Navajo Nation Forest on the Defiance Plateau and in the Chuska Mountains (Banks 1985, 1986; Kemrer 1983; Kemrer and Lord 1984) illuminated the Navajo occupation of these areas. Although concerned with all aspects of the historic and prehistoric occupation of Navajo lands, the Navajo Nation Cultural Resource Management Program (NNCRMP) and later the Navajo Nation Archaeology Department (NNAD) have become major sources of data concerning the distribution and age of Navajo sites within the current Navajo Nation boundaries (see Gilpin, this volume). Unfortunately, however, many of these data are unpublished and remain isolated in site files that may be difficult to use.

The 1980s witnessed a tremendous expansion of research on Navajo archaeological sites. The rise in interest began with the publication of “The Entry of the Athapaskans into the American Southwest: The Problem Today” by David R. Wilcox (1981). He summarized the existing models of the Athapaskan migration and reemphasized the likelihood of a late (A.D. 1450) High Plains route that brought the Athapaskans to the edge of the Puebloan Southwest just prior to Coronado’s Entrada (but see Brugge 1984). His

model has been the accepted explanation of this process for the past decade (see also Wilcox 1984, 1988).

Archaeological research, both on and adjacent to the Navajo Nation, provided new data to test the existing models. Marshall's summary (1985) of two Navajo sites in Blanco Canyon, and particularly their radiocarbon dates in the mid-1500s, suddenly brought the Dinétah phase back into existence (Hogan 1989). This research was quickly followed by other early dates on Navajo sites in the La Plata valley (Hancock et al. 1988; Hancock 1992). These new data and the questions they raise are used by several researchers in this volume. If the ethnic identity and dating of these sites indicate an early Navajo occupation near the Colorado border, earlier models of Navajo immigration and adaptation will need to be substantially revised (see above).

Research on Navajo pueblitos received a much needed boost with the publication of *Defensive Sites of Dinétah* (Powers and Johnson 1987). Although some of the larger pueblitos had been studied earlier (Carlson 1965; Haskell 1975; Kidder 1920; Keur 1944), and Brugge (1972b) dis-

cussed pueblitos both within and outside the Dinétah, Powers and Johnson demonstrated that the number of pueblitos far exceeds any previous estimates, although their geographic distribution during the early 1700s remains limited to the Dinétah. Because of Powers and Johnson's baseline work, pueblitos can now be viewed as eighteenth-century phenomena that played a central role in the development of larger Navajo communities (Dykeman and Wharton 1994; Jacobson et al. 1992; Marshall 1991; Towner 1992; Towner and Johnson 1995).

Finally, the 1987 excavations at the Sand Dune site (Bradford 1987; Jones 1988) near Ganado, Arizona, allowed researchers to address questions concerning pre-Fort Sumner Navajo mobility and adaptation on a much larger scale than was possible only two decades ago. Continued research on pre-Fort Sumner sites west of the Chuska Mountains will allow us to incorporate much larger areas of Navajo occupation into our models of Navajo emigration out of the Dinétah and expansion across northern Arizona.

### Themes in Navajo Archaeology

Four basic themes have dominated Navajo archaeology since its inception: origins, expansion, adaptation, and culture change. The Navajo and the Apache are the only Athapaskan-speaking peoples in the Southwest. Linguistic research in the first half of this century indicated that these groups are derived from a northern root, and arrived in the Southwest during the late prehistoric or early historic periods (Hoiyer 1938; Sapir

1916, 1936). One of the enduring problems of Navajo archaeology, therefore, has been to identify the timing and routes of the Athapaskan entry into the area (see D. R. Wilcox 1981, 1988 for an overview of this problem). Whereas several models were developed to explain different routes and times of entry, until recently there were no universally accepted Navajo cultural materials dated prior to the Pueblo Revolt of A.D. 1680.

The earliest universally accepted Navajo archaeological remains are located in the Largo-Gobernador area of northwestern New Mexico, an area known as the Dinétah or ancestral Navajo homeland (Figure 1.1). If the Navajo are recent entrants into the Southwest, as indicated by linguistics, where did they come from and when did they arrive? Two major "schools" concerning this issue have developed (see Schaafsma, this volume, for a detailed discussion of these perspectives). One group of researchers suggests that the Navajo arrived on the High Plains of the Southwest only a few years prior to Coronado's Entrada and crossed the Continental Divide after the Pueblo Revolt of A.D. 1680 (Gunnerson and

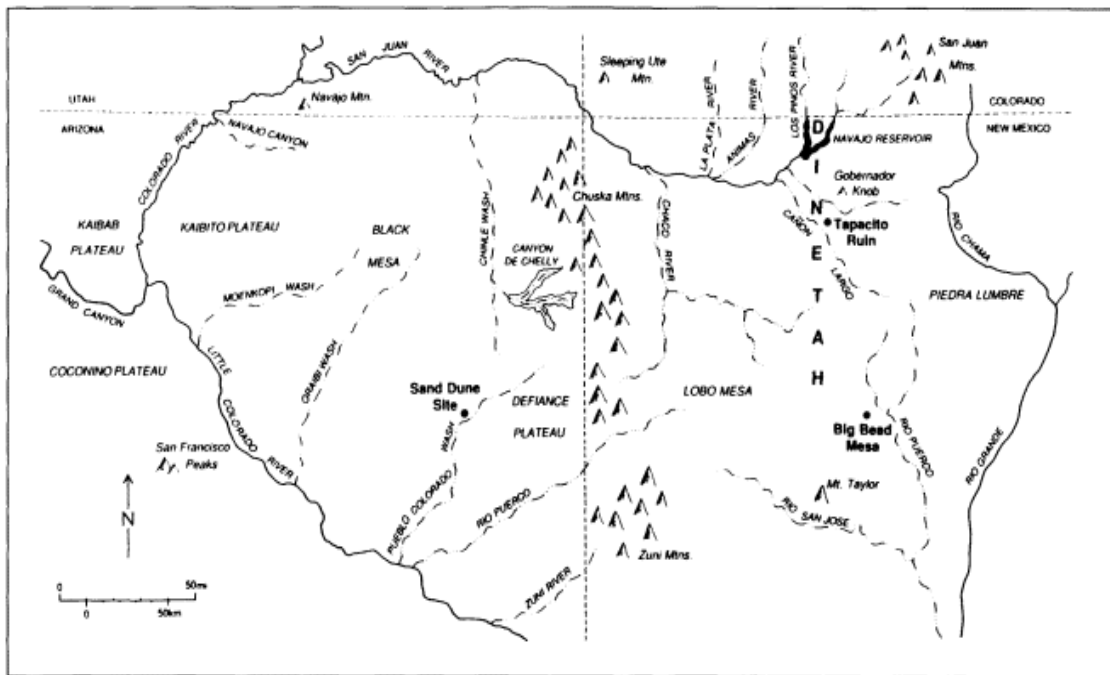


Figure 1.1.  
Map of areas and sites discussed in the text.

Gunnerson 1971; C. F Schaafsma 1981, this volume). The other school (Brugge 1983; Hall 1944; Haskell 1987; Huscher and Huscher 1942; Perry 1991) advocates a pre-1500 arrival by way of the mountains and valleys of Colorado. Although only Schaafsma addresses this issue directly, three other papers in this volume (Fetterman, Brown, Reed and Reed) have serious implications for both models.

The second major issue in Navajo archaeology has been the migration of the Navajo out of their Dinétah homeland and expansion throughout large portions of Arizona and New Mexico. Several papers in this volume discuss data from the Dinétah, but the area is not defined in the same way by all researchers, even those represented here. In the past, Dinétah has been viewed as a very restricted locale centered in the Largo and Gobernador drainages of northwestern New Mexico and bounded on the north by the Navajo Reservoir (Powers and Johnson 1987; Schroeder 1963:6). At the 1995 Navajo Studies Conference in Farmington, New Mexico, however, a panel of four traditional Navajos and three preeminent archaeologists generated seven different interpretations of Dinétah. Geographic definitions ranged from an area within a thirty-mile radius of Gobernador Knob to all lands between the four sacred mountains, an area that extends to the San Francisco Peaks in Arizona. Nongeographic definitions included anywhere with the co-occurrence of Gobernador Polychrome ceramics and pueblitos and Dinétah as “wherever a Navajo feels at home.” Although the definitions used in the volume are not all the same, all include the area east of Farmington, New



Mexico, north of Cuba, New Mexico, west of the Continental Divide, and south of the Colorado-New Mexico border.

Traditionally, the emigration from Dinétah has been viewed as a post-1750 phenomenon caused by increased Ute raiding, drought, or both (Powers and Johnson 1987:5). Historical documents (Reeve 1959, 1960) and archaeological remains (Brugge 1972a; Keur 1941) confirm Navajo movements to the south in the mid-1700s, but little evidence of either kind exists for vast areas of northern Arizona and southern Utah. The Dominguez and Escalante Expedition of 1776 is the best historical source for this area, but the Spanish priests traveled north of most of the area presumably occupied by Navajos. This is one geographic area where archaeological remains can provide the best evidence of Navajo immigration. Three papers in this volume (Towner, Gilpin, and Begay and Roberts) address this issue and provide important new data that, if accepted, will require reinterpretations of much of Navajo history.

Adaptation is another major theme in Navajo archaeology. Specifically, archaeologists have been interested in documenting various changes

in Navajo settlement and subsistence patterns over the past four centuries. At the time of the Fort Sumner incarceration, the Navajo were primarily transhumant sheepherders and part-time agriculturalists who supplemented their diet with items gained by hunting and gathering. Raiding may have contributed to the economy, but its value is not known. Prior to their entry into the Southwest, the Athapaskans were assumed to have been highly mobile hunter-gatherers whose subsistence was gained mostly from nondomesticated foodstuffs. Although trade for maize has not been precluded, it did not contribute substantially to the pre-Southwestern Athapaskan diet. The scant historical references, including descriptions of vast Navajo fields of corn, beans, squash, and cotton (W. W. Hill 1940), and large herds of horses, sheep, and a few cows (A. B. Thomas 1932) are still the major sources of data concerning early Navajo subsistence. In order to address questions on pre-Fort Sumner Navajo diet and economy, data from excavations of a variety of site types and temporal spans are needed. Such data may be forthcoming from the Largo-Gobernador area (Hogan et al. 1991), but are rare for other parts of Navajo territory (but see Jones 1988).

The fourth major issue in Navajo archaeology has been identifying the mechanisms of Navajo culture change. If the “Querechos” described by Coronado were indeed Navajos, the earliest historical references to Navajos describe them as Plains bison hunters. Documents written two hundred years later (W. W. Hill 1940) describe vast Navajo cornfields in the Largo-Gobernador area. Finally, the Navajo of the nineteenth

century were noted for their large sheep and goat herds and weaving skill. Such dramatic changes in subsistence and settlement patterns undoubtedly influenced Navajo culture. Identification of the mechanisms of these changes, however, has again relied on nonarchaeological data. For much of this century, archaeologists have used scant historical references to interpret the initial changes as the result of immigration of other peoples, most notably Puebloan groups fleeing the aftermath of the Spanish Reconquest of the 1690s (Hester 1962a). Navajo oral histories suggest at least two clans derived from Puebloan refugees, but Hogan (1991) indicates a single “clan ancestress” may be responsible for each clan. Similar Navajo traditions attribute single clans to (a) Mexican captives and (b) Paiute neighbors (Collier 1966; Shepardson and Hammond 1970:58-59), yet no one has seriously suggested massive immigration and acculturation of Mexicans or Paiutes into Navajo culture. Later changes, including the adoption of a herding economy, have been interpreted as a response to increased population and increased mobility necessitated by Ute raiding (Brugge 1963:17, 1972a, 1972b).

## Volume Outline

Papers in Part I address, either directly or indirectly, the prevailing models of Navajo origins. Following this introduction, five papers discuss early Navajo archaeological sites in New Mexico. In chapter 2, Curtis Schaafsma details his criteria for identifying early Navajo sites in the Animas-La Plata area. Schaafsma's Piedra Lumbre phase in the Rio Chama Valley fits quite well with D. R. Wilcox's Querecho model (1981) of Navajo origins. If the interpretations of the data from the Animas-La Plata area presented in subsequent papers are valid, both the Querecho model and role of the Piedra Lumbre phase in Navajo history must be reevaluated. Brown (chapter 3) evaluates the Animas-La Plata database and suggests how it may be more fully exploited. He suggests that the boundary between the Navajo and Ute occupants in northwestern New Mexico changed through time and that the Navajo occupation of the area was intensive and varied. He provides criteria for establishing both the temporal and cultural affiliation of protohistoric sites found in northwestern New Mexico. In chapter 4, Fetterman discusses some of the data from sites in the ancestral Navajo homeland of Dinétah. Using several dating techniques, he suggests that the Navajo occupied the area before the Pueblo Revolt, probably during the early A.D. 1600s. Reed and Reed discuss the implications of ceramic technology for both Navajo origins and interregional exchange in chapter 5. Their analyses show that Gobernador Polychrome, one of the defining characteristics of the post-Revolt Gobernador

phase, was being produced by the mid-1600s. They suggest that ceramic technology was not changed by an influx of Puebloan refugees from the Spanish Reconquest of New Mexico, but was developed by other forms of Navajo-Pueblo interaction. Finally, Kearns (chapter 6) examines stone tools and technologies from protohistoric sites and suggests ways in which these assemblages can be distinguished from earlier archaeological materials or Ute remains. The lithic data are also used to make inferences concerning the early Navajo settlement and subsistence patterns.

Part II expands the geographic coverage of early Navajo archaeology beyond the traditional boundaries of Dinétah. In chapter 7, Towner discusses the implications of the temporal and spatial distribution of pueblitos, small masonry structures traditionally associated with an influx of Puebloan refugees following the Spanish Reconquest. His analyses show that pueblitos extend temporally and spatially far beyond the range of Spanish military activity, and he suggests that they were a purely Navajo response to Ute encroachment. Gilpin (chapter 8) discusses the expansion

of Navajo territory west of the Chuska Mountains in the eighteenth and nineteenth centuries. His data show that much of the current Navajo Nation was occupied by Navajos as early as A.D. 1750. His suggestion that early western Navajos were participating in pan-Navajo culture changes has serious implications for Navajo culture history and merits close attention by other Navajo scholars. In the following chapter, Begay and Roberts use archaeological and ethnographic data to suggest Navajo use of the Grand Canyon by the late 1600s. The implications of this early use of the area for Navajo origin and migration models are quite profound.

Part III provides two perspectives on Navajo ceremonialism and its importance in interpreting Navajo culture history and intertribal relationships. In chapter 10, Copeland and Rogers discuss the development and significance of Navajo rock art and show the value of treating such sites as an integral part of the archaeological record. Rejecting “rock art” and employing the term “ceremonial imagery,” they describe three newly discovered sites and discuss the distribution and importance of such imagery throughout the Dinétah. Wheeler, Wilcox, and Ayers discuss three archaeological sites with evidence of early Navajo ceremonialism in chapter 11. It is rare that such evidence is recovered archaeologically, and these authors combine the archaeological data with ethnographic information to interpret the sites. They infer the sites are indicative of witchcraft ceremonies, a practice that may have considerable time depth in Navajo culture. Therefore, traditional interpretations of

the development of Navajo religion may need to be revised.

The conclusion of the book is a chapter by well-known Navajo scholar David M. Brugge. His comments on the papers offer the insights of someone who has spent much of the past forty years studying Navajo culture and archeology.

*Acknowledgments.* We would like to thank Alison E. Dean for drafting the map of the Navajo area. Any errors are the responsibility of the authors.

## 2

# Ethnic Identity and Protohistoric Archaeological Sites in Northwestern New Mexico Implications for Reconstructions of Navajo and Ute History

Curtis F. Schaafsma

## Introduction

Recent archaeological work in northwestern New Mexico has identified a series of sites north of the San Juan River dating between ca. 1500 and 1700 that have been attributed to the protohistoric Navajo (Brown 1991; Hancock et al. 1988; A. C. Reed et al. 1988). D. R. Wilcox (1988:275) has raised the question that these sites may be Ute rather than Apache-Navajo. Spanish historical accounts indicate that the country north of the San Juan River was Ute territory during the 1700s, and probably well before, making it more likely that these sites are Ute in origin. In addition, identification of these sites as Navajo is called into question by ambiguities about the ethnic affiliation of the artifacts and architecture, which in most cases are as likely to be Ute as Navajo. It is argued that the ceramics are therefore more likely to be Ute than Navajo. This proposed change in ethnic identification has major implications for cultural reconstructions of both the protohistoric Navajo and the Ute. For example, Winter and Hogan (1992:299) have used these sites and others



south of the San Juan River to revive Dittert's Dinétah phase and to "suggest that ancestral Navajo groups occupied the upper San Juan drainage in the mid-sixteenth century, and that these groups might have entered the area as early as A.D. 1450." This proposed change instead reaffirms the essential accuracy of

previous interpretations which held that the Navajo did not live west of the Continental Divide until after about A.D. 1696 and instead were living in the Chama Valley, where they were responsible for the Piedra Lumbre Phase (C. F. Schaafsma 1979). This interpretation, in turn, implies that the Chama Valley Navajo were recent (ca. 1580) immigrants from the High Plains where they and the other Apacheans had been buffalo hunters since about A.D. 1400 or 1450.

### General Considerations

Interest in the protohistoric period of the greater Southwest (Vierra and Gualtieri 1992; D. R. Wilcox and Masse 1981) requires dealing with an interface between academic disciplines as well as a wide range of modern American Indian people who are often very much affected by the deliberations of scholars. Legal considerations come into play with land claims and the consultation requirements of the Native American Graves Protection and Repatriation Act. There are real needs to seek the most responsible interpretations possible. These modern people also have their own ideas of where they came from and how they came to be what they are, ideas that are commonly at odds with scholarly interpretations (C. F. Schaafsma and Schaafsma 1995). Frequently, the meeting of academic disciplines runs into the stresses that result from deeply rooted expectations of scholars trained in different paradigms or “axiomatic systems” (C. F. Schaafsma 1991). The adherents of different disciplines often cannot even agree on what constitutes “evidence” or “data.” Different disciplines certainly weigh the same

"evidence" differently. All too often when trying to utilize "evidence" from another discipline scholars will simply accept what an authority says without making an attempt to examine the validity of the "evidence" or, conversely, will ignore it. Whether we feel comfortable about it or not, it is essential to critically examine all the "evidence" that is explicitly or implicitly supporting any interpretation. In the case of the protohistoric of northwestern New Mexico, such evidence includes historical accounts, ceramic technology, linguistic studies, and traditional histories. In my opinion, the bottom line for evaluating which concepts we are to accept is the empirical remains of the archaeological record. All of our hypotheses, reconstructions, and models must be subjected to an encounter with empirical data (Schaafsma 1991:70). As I said in 1981:

In a very fundamental way, contemporary archaeologists treat historical accounts, linguistic reconstructions, tribal traditions, and so forth as bases for setting up hypotheses that must be tested with empirical

remains from the archaeological record rather than conclusions to be accepted. It is this attitude, coupled with the technical expertise to do something about it, that makes the protohistoric once again a dynamic period with which to deal. (1981:299)

The successful test by Madsen (1975) of the linguistically based Numic Expansion hypothesis using patterns of ceramic distributions is a case in point.

Nevertheless, empirical remains do not speak for themselves, particularly regarding ethnic authorship; in the protohistoric period we must factor in historical, linguistic, and similar evidence in our efforts to address questions of ethnicity and cultural identity. Although one can theoretically assign primacy to empirical data in a neopositivistic manner, for the protohistoric we must recognize that the best possible interpretation is often a tenuous projection and combination of data from history, linguistics, archaeology and so forth (C. F. Schaafsma 1981:297).

We must also remember that no ethnic group can be considered in isolation, particularly during the protohistoric. Groups interacted with each other in complex ways, and some groups became virtual “melting pots” for displaced people, refugees, and once discrete groups who were absorbed by dominant groups. In southern New Mexico, west Texas, and northern Chihuahua, for example, a wide array of distinct ethnic groups such as the Suma, Chinarra, Jano, and Jcome were absorbed by the Apache during the eighteenth century (Di Peso 1985; Griffen 1979).

Another disconcerting aspect of research on the

nonpuebloan protohistoric groups is their scanty and elusive material remains preserved in the archaeological record. Unfortunately, prior to about 1974 archaeologists simply walked over sites that today are the focus of intense interest. Accordingly, there is very little in the established literature to use for comparison because little was analyzed in the past from some of these groups. When we are confronted with a new archaeological complex for a suspected ethnic group that may be separated by many miles and many years from known, accepted archaeological complexes of that group, we have little with which to compare the new materials. Often culture change during the historic period has altered what one would expect for a group from what is on the ground at sites occupied by their ancestors. In this situation the best methodology is to construct hypothetical models of what to expect for the various ethnic groups that might have been in an area, systematically compare the expectations with the observed archaeological materials, and reject the ones that clearly do not match (C. F. Schaafsma 1979). One might retain the one with the best fit or reject it too. A perfect

fit for any group is too much to require, and one's "conclusion" has to be a rough fit at best. Excessive skepticism, however, such as Buckles (1988) manifested in his discussion of the symposium on the archaeology of the eastern Ute, can be debilitating and ignores the fundamental fact that all science works with approximations that best fit the empirical world (C. F. Schaafsma 1991).

At least three different symposia have examined the protohistoric period in the past dozen years. The Southwestern protohistoric period in general and the appearance of Athapaskans in the Southwest in particular were discussed in Tempe, Arizona (D. R. Wilcox and Masse 1981); early Apacheans, particularly their ceramics, were considered in depth in Boulder, Colorado (Baugh and Eddy 1987); and all aspects of the protohistoric in New Mexico were discussed in Albuquerque (Vierra and Gualtieri 1992). All of these assessments of the "state-of-the-art" reflect swiftly changing interpretations arising primarily from contract archaeological projects in which archaeologists find themselves intensively examining areas with sophisticated techniques and discovering archaeological remains that were totally unknown a few years ago. The present task is to examine the topic of the protohistoric Navajo and related groups, such as the Ute, in the context of current interpretations and acceptable data.

### *Athapaskans*

Following Edward Sapir's study (1936) of Athapaskan languages, there emerged a widespread consensus among scholars that the Southern Athapaskan

languages, and at least some of the people who speak these languages, emigrated from northwestern Canada or interior Alaska in the not too distant past. This consensus still remains (Eggan 1983:740-41; Hale and Harris 1979:172; D. R. Wilcox 1988). Perhaps the most significant change to Sapir's general picture was Hoijer's summation (1971:4-5) that, with the exception of Kiowa Apache, all the southern Athapaskans (Navajo, San Carlos, Chiricahua, Mescalero, Jicarilla, and Lipan) "are simply closely related dialects of a single language." With not too much difficulty, a Navajo from Shonto, Arizona, can speak with an Apache from San Carlos, Arizona. The modern situation agrees with Fray Alonso de Benavides who in 1630 reported that the "Grandiosa Nación Apache" shared a common language (Ayer 1916:130, 40). Most linguists seem agreed that the Southern Athapaskans (except for Kiowa Apache) all spoke a common language about five hundred years ago. As Hale and Harris recently stated:

Within Southern Athapaskan itself (excluding Kiowa-Apache), the glottochronological calculations are consistently less than half a millennium; in fact, they are generally so low that it makes little sense on that basis alone to speak of significant divisions. In this, the languages are reminiscent of the Piman branch of Uto-Aztecan, where glottochronological calculations are likewise essentially meaningless. (1979:172)

The linguistic evidence implies quite strongly that most Apacheans were together in a closely interacting cultural milieu about the time Columbus arrived.

After 1936 scholars offered many proposals about how and when the Southern Athapaskans came south. When D. R. Wilcox (1981) summarized the main proposals it was clear there were two broad camps or schools. One school advocated an early, ca. A.D. 1350-1400, if not earlier, arrival via a route through the mountains and valleys of Utah and Colorado (Hall 1944; Harrington 1940; Huscher and Huscher 1942; Jett 1964; Worcester 1951). Generally this school focused on the Southern Athapaskans that eventually became known as “Navajo.” Brugge has consistently advocated this view, maintaining that the ancestral Navajo moved into the geographic space formerly occupied by the Plateau Anasazi soon after the Anasazi abandonment (1981a, 1983, 1984, 1992). Haskell (1987), like Hall (1944), believes the Navajo were in the Plateau much earlier, perhaps by ca. A.D. 1000. An important element of this school (Brugge 1981a, 1983; Haskell 1987) is the belief that by the time of initial Spanish contact, ca. A.D. 1540, the ancestral Navajo occupied most of the San Juan Basin south of the La Plata Mountains and



numbered in the many thousands. In his study of early Navajo geography, Reeve (1956:303) accepted Hall's tree-ring date of  $1541 \pm 20$  and Hall's assessment (1944:100) that this date "places the Navajo in the Gobernador at a time verging on the prehistoric."

The other school advocated a later arrival via a High Plains route. In this view, all Southern Athapaskans, Navajos included, were buffalo hunters on the High Plains at the time of initial Spanish contact. These were the people the Coronado expedition members called "Querechos" (Habicht-Mauche 1992:254; Winship 1896). According to the advocates of this view, the Southern Athapaskans or "Querechos" did not move west of the Sangre de Cristo Mountains until after Coronado's expedition in 1540-1542. When they did begin to move west of the Sangre de Cristo Mountains and the Rio Grande after 1542, they came as small groups

who infiltrated the unoccupied hinterlands near the Eastern Pueblos. This view was presented by Dolores Gunnerson (1956) and by Gunnerson and Gunnerson (1971:7):

Some of the Apaches who reached the Plains east of New Mexico moved westward very soon and infiltrated the Pueblo area... . Various lines of evidence suggest that all the Apacheans were primarily buffalo hunters in the early 1500s and that all then possessed a homogeneous, Plains-oriented material culture that lacked pottery.

I have agreed with this basic interpretation in the past (1974, 1975a, 1975b, 1976, 1978, 1979, 1981), emphasizing the point that the ancestral Navajo were among the High Plains Apachean buffalo hunters of the early 1500s. It is essential to note that these buffalo-hunting Southern Athapaskans or “Querechos” were probably present on the High Plains of eastern Colorado by ca. A.D. 1400 or slightly earlier (Brunswick 1991; Winter 1986b) and in eastern New Mexico and Texas by about 1450 (Habicht-Mauche 1992:251; D. R. Wilcox 1988:276). They, in turn, may well derive from the Avonlea complex as proposed by Wilcox (1981, 1988) and Frison (1988). This basic interpretation was formalized by Wilcox (1981), and is here termed the “Querecho Model.”

An important element of the “Querecho Model” is the notion that the post-1542 groups that moved in from the High Plains were few in number, which directly confronts Brugge’s reconstruction and Benavides’s statement that there were more than 200,000 Navajos in

1629 (Hodge et al. 1945:89). I have addressed Benavides's population estimates previously and maintained that

When the historical evidence is taken into account and combined with the all too obvious lack of archaeological remains, Benavides' population figures can simply be discarded. The notion of "tens of thousands" of Apaches surrounding the Pueblos in the early seventeenth century can only be proposed if the single account by Benavides is considered in isolation... . The only possible way to support such a notion is to come up with irrefutable archeological evidence, which so far has not appeared. Lacking such evidence, it would seem that Wilcox's "Querecho Model" is the only acceptable interpretation of the available evidence. (1981:303)

By the time D. R. Wilcox prepared his study of the arrival of the Southern Athapaskans, it had become widely understood there was no reliable archaeological evidence for Southern Athapaskans west of the Continental Divide (C. F. Schaafsma 1975a) and particularly in the

Navajo Reservoir District where an early Navajo occupation, the “Dinétah phase,” had been proposed (Dittert 1958a; Dittert et al. 1961). Dittert’s original definition (1958a and b) of the Dinétah phase depends heavily upon the validity of Hall’s tree-ring samples (1944:100) that dated between  $1491 + X$  and  $1541 \pm 20$ . Later Eddy (1966:459) questioned the validity of Hall’s dates, as did Carlson (1965:97-98), because they were inconsistent with other lines of evidence. These samples have since been lost and the dates were never validated by the Laboratory of Tree-Ring Research; the dates have been eliminated from the database (Robinson et al. 1974; Robinson and Towner 1993). Any ethnohistoric reconstruction of Navajo occupation in the Upper San Juan drainages that makes use of Hall’s unsubstantiated dates cannot be relied upon. One of the most troublesome features of the hypothesized Dinétah phase was that, aside from Hall’s dates, it had been defined on essentially negative evidence by subtracting traits that were believed to have been brought in by Pueblo refugees (Eddy 1966). After intensive research in the Navajo Reservoir District over a six-year period, Eddy concluded the final study by deleting the “Dinétah phase” from the Navajo Reservoir District cultural chronology (1966:Table 6, 507). Nevertheless, he maintained that historical records substantiated a pre-Refugee-period Navajo occupation in northwestern New Mexico, probably to the south in the Gobernador District (1966:507). However, Roy Carlson (1965) determined there were essentially no pre-1690 archaeological indications of Navajos in the Largo or Gobernador Districts.

In 1981, I reviewed the archaeological *and* historical cases for the Dinétah phase (1981:303-13) in part because D. R. Wilcox (1981:230) supported a ca. 1640-1700 remnant of the Dinétah phase in his paper, which I was discussing in that publication. In my review I maintained that the two cases were interdependent; the archaeological arguments were dependent upon historical evidence and the historical arguments were dependent upon archaeological evidence. Most important, historical arguments such as that of Reeve (1956) depended upon Hall's unsubstantiated dates. When one data set collapsed, the other did also. I concluded my review of the general Dinétah phase in northwestern New Mexico and southern Colorado by rejecting it:

All things considered there remains very little support for the Dinétah Phase hypothesis, either in its specific application to the Navajo Reservoir District or in its general application throughout the San Juan Basin. Like the inflated population figures of Benavides, the Dinétah Phase is best disregarded. (1981:313)

In 1984 Eddy, Kane, and Nickens prepared an overview of Southwestern Colorado summarizing and evaluating the known prehistory of Colorado and relevant regions. They presented a state-of-the-art understanding of Navajo origins as this topic was understood in 1984:

The Navajo Tradition, located in northwestern New Mexico and in a restricted portion of Southwestern Colorado, is a result of unique historical processes of migration and acculturation. Part of a larger southward drift of Athabascan speakers, the Navajo and their linguistic cousins, the Apache, are thought to have originated in the Canadian subarctic boreal forest. From this original homeland, they moved southward through the High Plains generally paralleling the Front Range of the Rocky Mountains... . From the southern High Plains springboard, the various Athabascan bands pivoted at right angles from their southward migration to enter the American Southwest of New Mexico and Arizona, moving in a westerly direction. Based on this historical reconstruction, one of the first Athabascan groups to leave the Plains and enter the Southwest were the people who later became known as Navajos. For this reason, and because of intimate contacts with Pueblo refugees and Spanish colonists during the 18th century, the Navajo culture differs significantly from other Athabascan groups now called Apaches. (1984:95)

These authors were of the opinion that any indications of pre-1700 Navajos in the San Juan drainage came from Spanish documents and not from archaeological evidence. “These sources have led ethnohistorians to surmise that the Navajo were already located in the upper San Juan Basin in their ancestral homeland, the Dinétah by 1550” (Eddy et al. 1984: 95-96). This

would be the “Dinéah phase” as originally proposed. However, as discussed above and in 1981 (C. F. Schaafsma 1981), the ethnohistorians as exemplified by Reeve (1956) were primarily relying upon Hall’s tree-ring dates, which Eddy (1966) and Carlson (1965) had both disregarded. Eddy et al. (1984:96) saw no empirical reasons to perpetuate this proposed occupation:

A fifth phase, the Dinéah, is questioned because of the lack of in-place Navajo artifacts and sites of demonstrable pre-1700 age (Eddy 1966:458-459). This taxon will not be discussed further.

By 1984 it appeared that the “Dinéah phase” had been eliminated in favor of the “Querecho Model.” Fred Eggan summarized our revised understanding of the entry of the Southern Athapaskans into the Southwest:

The origins of the Southern Athapaskan groups have not been clearly shown as yet, but D. R. Wilcox [1981] provides an exhaustive analysis of the data and concludes that after a long sojourn in the Black Hills, the Apacheans entered the Southwest via the Plains soon after the Spaniards arrived. This conclusion is strengthened by C. F. Schaafsma's report [1981] on excavations of early Navajo sites in the Piedra Lumbre Valley near Abiquiu, New Mexico, dated between A.D. 1640 and 1710. These are almost certainly the "Apaches de Nabaju" of the Benavides *Memorials* who were reported living in the Chama River Valley, a day's journey from Santa Clara Pueblo, in 1629. With the collapse of the proposed dating for the Dinétah phase, the assumed earliest Navajo archeological period, the Chama Valley is the earliest well-documented Navajo occupation in the Southwest and confirms the Plains region as the probable place of entry of Apachean peoples. (1983:741)

Meanwhile the archaeologists working in western Colorado and eastern Utah were evaluating the evidence for an Athapaskan migration in that region. Buckles, working in western Colorado, considered the Athapaskan route of migration and "concluded that it was through the Plains and the Prairie regions rather than the montane or intermontane region" (1971:1 327-28). He also proposed the theory that Athapaskans occupied areas such as Navajo Reservoir as the result of historic migrations from the east "and that perhaps northwestern New Mexico was occupied earlier by the Utes" (Buckles 1971:1329-30). Nickens (1982:37) summarized the prehistory and protohistory of southeastern Utah north of the San Juan River and regarded the presence of Navajos in that area as the



result of a northward expansion into southeastern Utah from northwestern New Mexico. As far as generalized Apacheans or Apaches as such are concerned, he took the position that "the presence of Apache groups in southeastern Utah has not been documented and probably never occurred" (1982:37). By 1984 it seemed extremely unlikely that the Southern Athapaskans had come south via the Intermontane route. As D. R. Wilcox maintained in 1988, "the most plausible route for early Apachean migration continues to be the High Plains" (1988:275).

### *The Revival of the Dinétah Phase*

The "Dinétah Phase" was suddenly revived in the eyes of many scholars when Marshall (1985) reported on two Navajo sites from the Cortez Co<sup>2</sup>

pipeline through Blanco Canyon, New Mexico. These sites contain definite plain Navajo pottery in association with simple ramada structures. A variety of radiocarbon dates were obtained, the earliest of which dated to the mid-1550s. I had the good fortune to visit one of these sites with David Brugge and Roy Carlson while Marshall was excavating it, and none of us disputed the identification of the pottery. However, severe objections can be raised about the validity of the radiocarbon dates. For example, the cross-section effect (Brown 1990; F E. Smiley 1985, 1994) would simply give an arithmetic average of the rings in the wood sample. This problem is compounded if the sample lacks sapwood (a common occurrence with buried posts) and if the post was slow-growing, many-ringed juniper. In spite of these problems with the dates, Marshall's results were quickly summarized by Winter (1986b) into a revised picture of early Navajo entry into the Southwest in which the Dinétah phase was revived.

The post-1985 revival of the Dinétah phase also has depended upon the interpretation of a series of sites in the La Plata Valley, northwest of Farmington, New Mexico. By August, 1986, sites with plain brown pottery in the La Plata River valley were being described as "Navajo sites" (Gaudy 1986). Prior to the summer of 1986, to my knowledge, archaeologists preparing reports in the La Plata Valley made no mention of "Navajo sites," except for dubious late sites like SAR 922-10 (LA 20254) (A. D. Reed and Horn 1987:128), originally dated about 1900 and interpreted as either Ute or Navajo. The original site form for LA 20254 emphasized the probability that it was a Ute

sweat lodge. This interpretive framework can be readily documented by the fact that a 1987 overview of the La Plata Valley made no mention of Navajos in the valley except for nineteenth-century farms (Dykeman and Langenfeld 1987: 24-25).

The basis for terming Gaudy's sites "Navajo sites" seems to be the pottery. By the summer of 1986, if not earlier, many of the archaeologists working in the La Plata Valley were calling the plain brown pottery found on some of the sites "Dinéah Gray" (Brown 1991:57-65). C. D. Wilson (1991:473) states that Dinéah Gray, La Plata Variety, was first identified by the Division of Conservation Archaeology archaeologists during their work in the area and that they had probably settled on this ceramic identification by early 1986, if not earlier. Hancock (1992) presented her views on this pottery in 1988. A wide array of dates soon appeared in association with this pottery and shallow, circular structures (Brown 1990), many of which seemed to extend back into the 1400s, if not earlier (Hogan 1989; A. C. Reed et al. 1988; Winter 1986b; Winter and Hogan 1992).

Thus, by the end of the 1980s, it appeared to many archaeologists that the original Dinétah phase had been confirmed and that it extended much further back in time than Dittert (1958a) had originally proposed. However, at the 1986 Plains Conference D. R. Wilcox mentioned this interpretation and stated “Yet, why they are Apache-Navajo rather than Ute sites has not been explained” (1988:275). Brown and Gish are quite familiar with the protohistoric La Plata Valley sites and recently finished the excavation report for a series of these sites in the La Plata Mine area:

Research at LPM [La Plata Mine] has conclusively demonstrated that the concept of a Dinétah phase is valid. This phase clearly predates the Refugee period. Based on the LPMAP chronological analysis (Chapter 13.0) and an evaluation of 46 C-14 dates, representing all that are currently available from hypothesized Dinétah contexts in the La Plata region (Brown 1990), we propose a range of A.D. 1500-1700 for the Dinétah phase. The issue of cultural affiliation merits much additional research. Architecture and ceramic attributes support the assumption that the Dinétah sites were inhabited by groups ancestral to the Navajo tradition, although projectile points cannot be differentiated from those associated with historic Apaches, Utes, and other groups. It is our conclusion that the Dinétah phase in the La Plata region represents the emergence of a distinctively Southwestern tradition among Athapaskan groups in the San Juan Basin, but the Dinétah complex lacks the blend of indigenous, Puebloan, and European traits that both anthropologists and natives have come to refer to as Dine, or Navajo. (Brown and Gish 1991:731)

This is the most important summation of these sites so

far. It gives us a definite time frame, A.D. 1500-1700, and opens the way for the occupation to be discussed without automatically labeling it “Navajo.” There certainly was a protohistoric occupation in the La Plata Valley characterized by plain pottery, shallow, round houses and side- and basal-notched projectile points, but the ethnic identification should not be intrinsic in the definition of the phase. Had Brown and Gish termed it the “La Plata Mine phase” or something similar, they could have done what was done with the “Piedra Lumbre phase” (C. F. Schaafsma 1979), that is, define the archaeological complex, date it, and then make the best possible assessment of its ethnic affiliation. As they note, “The issue of cultural affiliation merits much additional research.” In a situation where historical documents are extremely tenuous and there is nothing ethnically distinctive about any of the archaeological materials, the *method* followed in the Cerrito Site (AR-4) report (C. F. Schaafsma 1979) is highly recommended.

Brown and Gish (1991) also note that many groups in this time period throughout the region made and used very similar projectile points. One cannot settle the cultural affiliation question on the basis of such widely shared point types. Architecture and ceramics are the archaeological elements that incline Brown and Gish to believe the sites were made by Navajos. The ephemeral architecture, however, is not particularly diagnostic of any specific protohistoric group, and there are several groups in the Southwest and Great Basin that made similar houses well into the ethnographic present. For example, the winter houses of some groups of Northern Paiute described by Fowler and Liljeblad would be difficult to differentiate archaeologically from the houses in the La Plata Valley:

W. Z. Park (1933-1940) reports that when people in this central area elected to winter in the mountains near piñon caches, they built a more substantial semi-subterranean conical house. For this house, a pit was excavated one to two feet deep and 10 to 15 feet in diameter. The butt ends of large juniper poles were placed near the walls of the pit and leaned against each other at center to form the top. Smaller juniper and piñon poles were placed in between. Branches of these same trees, as well as willows and rye grass, were added over the framework and dirt was placed over these to complete the construction. A space was left near the center of the roof for a smoke hole. These houses might also have tunnel entrances made of the same materials. Such houses were built to be occupied for several winters. (Fowler and Liljeblad 1986:443)

Fowler and Liljeblad also note that the doors of Northern Paiute houses commonly face east and have a

fire inside in the center (1986:443). Such structures when encountered archaeologically could easily be confused with forked-stick hogans for example, those from Ramada Village in the Navajo Reservoir District (Hester and Shiner 1963). Such structures are also similar to the houses described by Buckles from the Uncompahgre Plateau area (1971:1252-65). I quite agree with Brugge who noted in regard to the La Plata Valley sites that "In view of the very simple and poorly preserved architectural remains of the sites, only the pottery has, at least thus far, had much significance in efforts to provide archaeological evidence of the ethnic affiliations of the occupants" (1992:337). Thus, ceramics remain as virtually the only useful archaeological criterion for determining the ethnic identity of the La Plata Valley protohistoric sites.

## Ute Cultural Chronology

Prior to discussing the La Plata area ceramics, it is necessary to review the current archaeology and ethnohistory of the Eastern Utes (Nickens 1988:1). The Eastern Utes are defined as “those Ute living east of the Green and Colorado Rivers, occupying eastern Utah and western Colorado” (A. D. Reed 1988:79). The following discussion focuses on those Eastern Utes living south and east of the Colorado River, even though some generalities in the literature refer to all of the Eastern Utes.

Although there is still a considerable discussion about the relationships between the Ute, Fremont, Anasazi, and the Uncompahgre Complex, archaeologists working in the region south of the Colorado River (Black et al. 1982; Breternitz et al. 1986; Buckles 1971; Eddy et al. 1984; Nickens 1982; A. D. Reed 1988) are in general agreement that the Ute were present perhaps by A.D. 1300 (Black 1991:4; Black et al. 1982:149; Nickens 1982:36), but quite certainly by A.D. 1400 (Reed 1988:91). In regard to the appearance of Uncompahgre Brownware, one primary indicator of Ute presence (Reed 1988), Buckles suggested that the earliest occurrence in western Colorado was not more than four or five centuries ago (Annand 1967:59; Buckles 1971:552), probably during the mid-1400s. He later changed his mind and stated, “My inclination now is to consider the ceramics to have had greater antiquity in the Uncompahgre area than four or five centuries, if these ceramics correlate with the advent of the Utes to the area” (1971:552). At a minimum, this “greater



antiquity” would place the beginning of Uncompahgre Brownware closer to the A.D. 1400 date used by Reed (1988). The Dolores Archaeological Program identified Numic sites containing ceramics which dated to A.D. 1500 (Breternitz et al. 1986:398; Errickson and Wilson 1988), but they relied upon Annand (1967) and the unrevised dates of Buckles (1971:552) for that date (Breternitz et al. 1986:399; Errickson and Wilson 1988:406). D. V. Hill and Kane (1988:72) also described these ceramics and were of the opinion that Ute potters used the paddle and anvil finishing technique in contrast with Navajo potters who used a scraping technique. Buckles, however, described Ute Uncompahgre Brownware as having been finished by scraping, with the note that “Inconclusive evidence of the paddle and anvil technique was observed on sherds... . If they were shaped by the paddle and anvil technique, it is obscured by scraping and usually attendant wiping of these interior surfaces” (1971:508). Clearly more work must be done on these ceramics before any general comparisons can be made.

Overall, A. D. Reed's presentation is most welcome because he cites a series of radiocarbon dates that date Ute archaeological sites in the A.D. 1300s and 1400s (1988:97-98, Appendix A). Several of these dated sites are associated with Uncompahgre Brownware ceramics (1988:82).

Some authorities, such as Marwitt, see a strong discontinuity between the Fremont cultures and the Numics or ancestral Utes. He (1986: 172) states, "Data from Hogup Cave and elsewhere support the proposition that the Fremont were replaced culturally and ethnically by Numic-speaking people." This replacement would have taken place between A.D. 1250 and 1350 (Marwitt 1986:171). Whereas many researchers favor the model of a "Numic Expansion" from a source in eastern California or Nevada (Madsen 1975), others favor a model of Numic speakers deriving from the Fremont (Truesdale 1993:31) or even non-Fremont Uncompahgre complex hunter-gatherers (Black et al. 1982: 28). As Black et al. note, "the length of the Ute presence in the Uncompahgre complex territory is, thus, still a major research question" (1982:28). The source of the Numic-speaking Utes is not immediately relevant to the question of where they lived after they replaced or absorbed the earlier Fremont, Anasazi, and perhaps "Mountain Tradition" people (Black 1991:4). The significant point is the emerging consensus among researchers working in eastern Utah and western Colorado that the Numic-speaking ancestors of the historic Ute occupied that region from about A.D. 1350 until they were first described by European explorers in the 1760s

(Auerbach 1943; Cutter 1977; Jacobs 1992) and 1770s (Warner and Chavez 1976).

A. D. Reed has proposed four Ute phases: Chipeta, Canalla, Antero, and Reservation (1988:88-91). In spite of Buckles's critique (1988) of these phases, the phase definitions are useful approximations; the later phases especially should be respected and worked with until new data compel a revision. The Chipeta phase (1250-1400) is the most poorly known, and lacks pottery. Of particular interest to this discussion is the Canalla phase (A.D. 1400-1650), a time period "between the verifiable appearance of diagnostic Ute artifacts at approximately A.D. 1400 and the adoption of an equestrian lifeway" (Reed 1988:88). Canalla-phase peoples are described as pedestrian hunter-gatherers who manufactured Uncompahgre Brownware ceramics, Desert Side-notched and Cottonwood Triangular projectile points, and Shoshonean knives and probably lived in wickiups (Reed 1988:88). The following Antero phase (1650-1880) represents the shift to an equestrian lifestyle when the Eastern Ute bands gradually acquired horses. Reed summarizes the current understanding of Eastern Ute archaeology and early history:

Uncompahgre Brownware and certain other diagnostic artifacts, namely Desert Side-notched and Cottonwood Triangular projectile points and Shoshonean knives, persist throughout the archaeological record since approximately A.D. 1400, suggesting continuity of Ute occupation over a geographic area similar to that of historic times. (1988:91)

Historically, the Ute geographic area is essentially the area mapped by Callaway et al. (1986:337). For the southern groups of Eastern Utes, this area is a triangular region bounded by the Colorado River on the west and north, the Continental Divide on the east and the San Juan River on the south. This region clearly includes the La Plata Valley where the sites under discussion are located.

*Historical Documents, Utes, and the Border with the Navajo*

The southern and southeastern boundaries of the map prepared by Callaway et al. (1986:337) are quite securely defined by a series of Spanish documents spanning nearly 150 years, all of which are in reasonable agreement with each other. They begin with the 1626 account of Salmerón and, for our purposes, close with the 1776 account of the Domínguez-Escalante expedition.

The first account by Fray Jerónimo de Zárate Salmerón, although confused with a myth about Mexican Indians living to the northwest of Jemez Pueblo, does give a sensible account of people who were probably Utes. Schroeder regarded this as “probably the earliest nearly

certain reference to Southern Utes by the Spaniards” (1965:54). Milich has translated the relevant passage:

The Hemex Indians in their language called these Mexicans Guaguatu, Guaputu, and when I asked the Indians why they give them this name, they answered it was because of their way of living, since they do not have terraced houses like those of New Mexico, but shelters covered with straw, and they do not have estufas for their winters, so they had told them, and that over there where they were living it is not as cold as it is in New Mexico, and that afterwards they returned to their land, not by the road over which they had come but by way of the Rio de Zama upstream; traveling to the northwest according to the straight route that they indicated to me. (1966:93)

While waiting out the Pueblo Rebellion in El Paso in 1686, Fray Alonso de Posada wrote an account of New Mexico and the surrounding

regions (Tyler and Taylor 1958). This document “was regarded for many years subsequent to that date as the most authentic source of information relating to the regions outside the settled portions of New Mexico” (Warner and Chavez 1976:43). Posada arrived in New Mexico in 1650 and was in a position to learn a great deal about the regions surrounding New Mexico from both the Indians and Spaniards (Tyler and Taylor 1958:285). In this 1686 account Posada reported that the modern San Juan River was the border between the Ute to the north and the Navajo to the south:

Let us again begin at thirty-seven degrees in Santa Fé, the center of New Mexico, thence taking a straight line from this place to the northwest region between south and north, crossing the mountains called Casafuerte or Navajo one arrives at the Grande River [here the San Juan] which goes straight west, ... and crossing said Grande River one enters the Yutas Nation (warlike people). Crossing through this nation about sixty leagues in the same northwesterly direction, one then enters some hills at about fifty leagues distance and the nation the northern Indians call Teguayo. (Tyler and Taylor 1958:304)

Ute territory, as known to the Spaniards in 1686, continued on beyond the river, probably to the Wasatch Mountains on the other side of which was a group which the Spaniards and Pueblo Indians called “Teguayo.” From the facts that Posada learned about Teguayo from a Jemez Indian and a Spaniard, Francisco Luján, who had wanted to go visit the place, but was not allowed to do so (Tyler and Taylor 1958:305), it appears the Spaniards had not yet been to

the Wasatch Mountains and probably not much past the San Juan River. However, the account does indicate that in 1686 the Spaniards felt confident that the area between the San Juan River and the Wasatch Mountains was occupied by Utes. Reeve also confirmed that Posada “clearly applied the name *Rio Grande* to the river known today as the Rio San Juan” (Reeve 1956:300) and that the river separated the Utes to the north from the Navajos to the south (Reeve 1956:301).

The first documented expedition into Ute territory north of the San Juan River was authorized by Governor Tomás Vélez Cachupin in 1765 and was led by Juan Maria Antonio Rivera (Auerbach 1943; Cutter 1977; Jacobs 1992). Among the several members of this party was the interpreter Joaquin, “probably of Ute origin” (Cutter 1977:7). Although this was the first authorized and documented trip into this area, it seems highly likely that people had made earlier unauthorized forays and knew the country fairly well (Jacobs 1992:204). The Rivera party actually made

two forays in 1765, one in July, and the other three months later (Cutter 1977). They followed well-established trails that the Utes used on a regular basis to come to Abiquiu for trade (Cutter 1977:8; Jacobs 1992:211). There seems little reason to doubt that these were essentially the same trails that the Dominguez-Escalante party followed eleven years later in 1776 (Cutter 1977:8). After traveling up the Chama River and crossing over to the San Juan drainage they traveled northwest over the Pine and Florida Rivers to the Animas River (Cutter 1977:8; Jacobs 1992:212). Near modern Durango, Colorado, on the Animas River, were two Ute villages. The first Ute village was close to the Animas River crossing. If the crossing was at the same place as Dominguez-Escalante used, it was about four miles south of Durango (Warner and Chavez 1976:11). Here the Rivera party “found the rancheria or village of the principal chief Coraque, who was accompanied by three inferior Indian captains, Joso, El Cabezón, and Picado” (Cutter 1977:8). The Spanish explained they were looking for a Ute named Cuero de Lobo, or Wolfskin, who, it turned out, had “gone off to see his mother-in-law in the land of the Payuchi to the west” (1977:9). Rivera’s party learned that a second Ute village, the village of Roan Horse (Caballo Rosillo), was downstream on the Animas River (Cutter 1977:9). A small contingent of Rivera’s party went downstream to the rancheria of Caballo Rosillo (Jacobs 1992:208). The Rivera party went as far as Dolores, Colorado, on this first trip, and then returned to Abiquiu (Cutter 1977:9).

The diary for Rivera’s second expedition begins at the



La Plata River or the Río de San Joaquín “where they met their Moache Ute friends” (Cutter 1977:11). The La Plata River crossing was probably near modern Hesperus, Colorado, assuming they were on the same trail used in 1776 (Warner and Chavez 1976:13). The Domínguez-Escalante party members were fully aware that the Rivera party had come there before (Warner and Chavez 1976:12).

From the La Plata River crossing, the Rivera party continued to the Dolores River, northwest to the Utah/Colorado border somewhere northeast of Monticello, Utah, through the Lower Lisbon Valley near La Sal Junction, Utah, and to the Colorado River at modern Moab, Utah, via Spanish Valley (Cutter 1977:11; Jacobs 1992). It seems clear from inconsistencies in the diary as well as in the later diary of Domínguez-Escalante that they went to places not discussed in the diary, and they probably made several more trips to the area between 1765 and 1776 (Auerbach 1943:4-5; Cutter 1977:13). Auerbach said that “Rivera led at least three expeditions into the San Juan and the Gunnison country, the last one probably having been undertaken in 1775” (Auerbach 1943:4). The 1765

trip, however, is the only one that is documented (Cutter 1977). Thus, the Rivera diary is reliable historical evidence that there were Ute villages or rancherias on the Animas River in 1765 and that the upper La Plata Valley was Ute territory.

The 1765 Ute villages of Coraque and Roan Horse along the Animas River south of Durango, Colorado, are not far from an excavated Ute wickiup site (5LP353), located just south of Durango (Eddy et al. 1984:103). After crossing the Animas River, the Domínguez-Escalante party, and presumably the Rivera party before them, passed through a narrow valley which Warner and Chavez (1976:11) indicate was Ridges Basin. The indications that both parties were in Ute country is in agreement with Winter (1986a), who took the position that a series of protohistoric and early historic sites in Ridges Basin were Ute in origin (see Kearns, this volume). Speaking of the Ridges Basin sites he states, "Ute occupation apparently lasted from the late prehistoric or early contact period until the current, post-Reservation era" (Winter 1986a:239). The 1765 Ute villages are also only a few miles down the Animas River from Hidden Valley where one structure at Talus Village is probably Ute in origin and could date as late as 1774 (Dean 1969; but see Kearns, this volume).

When Domínguez and Escalante crossed the Navajo River near Dulce, New Mexico, on August 5, 1776, they described how it joins the San Juan River and how the combined rivers continue westward dividing the Ute on the north from the Navajo on the south (Warner

and Chavez 1976:8-9). They used the name “Río Grande de Navajó” for the river below the junction with the San Juan because it separated the Navajo Province from the “Yuta nation” (Warner and Chavez 1976:9; Reeve 1956:301). On this point they were in complete accord with Posada who, ninety years before, had reported that the modern San Juan River separated the Navajo from the Ute. The 1776 diary is obviously more specific in recognizing the Navajo River near Dulce, New Mexico, upstream from the junction with the modern San Juan River. It is the modern Navajo River that Callaway, Janetski, and Stewart were using to define the southeastern corner of Ute country (1986:337).

Bernardo de Miera y Pacheco was a member of the Domínguez-Escalante party (Warner and Chavez 1976:4) and, after the trip, made several well-known maps of the region. One map in particular, made in 1778, shows the route the party took and the places where they made their camps (Figure 2.1); it shows by means of a heavy line drawn on the south side of the modern San Juan River the boundary between the Navajo country to the south and the Ute country north of the river. It also shows their camp at “El Belduque” which is close to modern Dulce, New



Figure 2.1.

Detail of the don Bernardo de Miera y Pacheco map made in Chihuahua, Mexico, in 1778 following the 1776 expedition led by Fray Francisco Atanasio Dominguez and Fray Sylvestre Vélez de Escalante. Note the route of the 1776 expedition and the camping places indicated by circles surmounted by crosses. Also note the tipi village near the junction of the "Rio de los Pinos" (Pine River) and the "Rio de Nabajoo" (San Juan River), which indicates the beginning of the land of the Utes ("empieza la tierra de los Yutas"). Another tipi village appears at the ford of the "Rio de S. Lazaro" (Mancos River), which indicates the Moache Utes ("Yutas Mugoachis"). Their camp on the "Rio de S. Joachin" (La Plata River) is shown. From a photograph taken by the author of the original map when it was on display in 1988 at the Palace of the Governors, Museum of New Mexico, as part of Michael Weber's exhibit on Spanish Cartography. Permission to photograph the exhibit was kindly given by Dr. Thomas Chavez, Director of the Palace of the Governors, Museum of New Mexico. A copy of this map is available in an end pocket of Bolton's *Pageant in the Wilderness: The Story of the Escalante Expedition to the Interior Basin, 1776* (1950).

Mexico; the southern border of Ute country drawn on his map follows essentially the modern Navajo river eastward to the San Juan Mountains. I suspect the San Juan/Navajo River has separated the Utes and Navajos for a long time, at least since 1686. This should not overlook the important, but apparently short-lived, occupation by Navajos of the Navajo

Reservoir District and the mesas westward to the Animas River. Apparently, the Navajo occupied this region from approximately 1696 to 1720 (Carlson 1965:100-101).

Overall, the historical documents and Miera y Pacheco's maps are solid enough to allow us to extend Callaway's, Janetski's, and Stewart's map of Ute country back to the 1680s with a high degree of confidence and to begin to take the position that the country north of the San Juan/Navajo Rivers had been Ute territory since A.D. 1400 or 1500. In other words, given the general summaries of Ute archaeology for western Colorado (Buckles 1971; A. D. Reed 1988) and southeastern Utah (Black et al. 1982; Nickens 1982) which place the Utes in those parts of their historic range by A.D. 1300-1400, it may well be that the Utes were present throughout much of their historic range as mapped by Callaway et al. (1986), that is, north of the San Juan/Navajo River system and west of the Continental Divide, by at least A.D. 1400-1500. If this is the case, the A.D. 1500-1700 protohistoric archaeological sites in the La Plata Valley near the New Mexico-Colorado border were firmly within Ute territory.

Interestingly, A. D. Reed and Horn (1987:11) believed they were working in Navajo country when they prepared their report for the supplemental survey of the La Plata Mine:

The primary protohistoric/historic aboriginal group in northwestern New Mexico are the Navajo. The Navajo are documented in the Southwest in Spanish historical

accounts dated to A.D. 1598, leading ethnohistorians to surmise that they were established in their homeland by A.D. 1550. (Eddy et al. 1984)

Reed and Horn seem to have overlooked the fact that Eddy et al. rejected the pre-1700 Navajo occupation of the Upper San Juan country and the Dinétah phase that originally referred to the hypothesized A.D. 1550-1700 Navajo occupation of the country west of the Continental Divide. One certainly cannot cite Eddy et al. as proof that the La Plata Valley prior to 1700 was Navajo country. Nevertheless, Reed and Horn (1987) describe the sherd and lithic sites in the La Plata Mine as “Navajo sites,” and because the sites were “Navajo sites,” the sherds were “Navajo” sherds. Later they returned to the La Plata Mine and tested a number of these sites (Reed and Horn 1988b) and excavated LA 49498, treating it as a “Dinétah phase” habitation site (Reed and Horn 1988a). By the time of the LA 49498 excavation report, there were enough C-14 dates available to provisionally date this and similar sites nearby to about A.D. 1444 (Reed and Horn 1988a:80).

Because they were in Navajo country, or so they believed, and the sites were dating well before A.D. 1550, not only was the Navajo Dinétah phase resurrected but it was also extended back in time much earlier than Dittert (1958a, 1958b) had originally proposed. But what if they were not in Navajo country after all? Or more to the point, what if they were in Ute country?

### La Plata Area Ceramics

We can now turn our attention to the ceramics found on the protohistoric sites from the La Plata Valley. These ceramics have become the main criterion for labeling the sites “Navajo.” It has long been recognized, however, that the protohistoric and early historic pottery of the southern Paiute (Baldwin 1950; Euler 1964, 1966), Ute (Annand 1967; Buckles 1971; Opler 1939), Apache (Baugh and Eddy 1987), and Navajo (Carlson 1965) are very similar (Baldwin 1950). They can usually be discriminated only on the basis of vessel shape and minor surface texturing such as fingernail indentations. The basic technology of the unpainted, unslipped pottery made by all these groups is such that there is a great deal of overlap in attributes such as tempering, surface treatment, and surface, paste, and core colors.

Buckles (1971) pointed out the disconcerting manner in which archaeologists tend to identify such ceramics according to the ethnic group that was believed to have been in the area at the time the pottery was made. In the Uncompahgre region, the ceramics were thought to be

Ute pottery because they were found in historic Ute country and sometimes on the floors of wickiups. Speaking of the problems of discriminating Ute, Southern Paiute, Navajo, Ute, and perhaps Yavapai pottery Buckles stated:

Similarities in ceramics of all these peoples appear to indicate that a number of common characteristics occur and that the origins may be related and no ethnic group identification of these ceramics can be made except in relationships to geographic distributions if the ceramics are not found in cultural contexts identifiable with one of the ethnic groups. (1971:505)

In the case of the La Plata Valley sites, the identity of the cultural context is made by reference to the ceramics. No other archaeological evidence (i.e., the projectile points or house types) can be confidently used to provide an ethnic identification for the sites. Thus, a tautology has developed where the ceramics are Navajo because they are found on Navajo sites and the sites are Navajo because they contain Navajo ceramics.



In spite of adequate descriptions of this pottery now in the literature (Brown 1991; Hancock et al. 1988; Hancock 1992; A. D. Reed and Horn 1988a and b), I can see no basis for identifying this pottery as Navajo pottery as opposed to several other possible ethnic groups. I was shown samples of this pottery soon after Hancock began working with it; I told her that I did not know what it was, but it was not Navajo pottery. I have also examined most of the pottery obtained by Reed and Horn during their survey and testing work (1987, 1988b) and excavation of LA 49498 (Reed and Horn 1988a). This pottery does not match known Navajo pottery from the Navajo Reservoir District or the Largo/Gobernador District.

Now that more pottery from the La Plata sites is available, it is widely recognized that this pottery commonly has fingernail indentations as surface decoration (Brown 1991). Similar surface decoration has been documented on Southern Paiute (Baldwin 1950) and Eastern Ute pottery from western Colorado (Annand 1967; Buckles 1971), but is lacking on known pre-1750 Navajo pottery (see below). I am inclined, therefore, to identify the protohistoric pottery in the La Plata Valley as a heretofore unrecognized southern variant of Eastern Ute pottery or Uncompahgre Brownware. Reed and Horn (1988a) certainly knew about Uncompahgre Brownware from west-central Colorado. Reed prepared the 1988 overview of Ute archaeology cited above. They compared the La Plata sherds with a sample of Ute Uncompahgre Brownware from west-central Colorado “and the La Plata Mine specimens are quite distinctive” (Reed and Horn

1987:17). There is no reason that the sherds should be identical with the Uncompahgre Brownware sherds Reed and Horn used for comparative purposes. The La Plata Valley ceramics may not be identical with Uncompahgre Brownware sherds, but that does not mean they are Navajo sherds.

### *Navajo Pottery Pre-1750*

Pre-1750 (and post-Revolt) plain Navajo pottery was described by Carlson (1965) by the name “Dinétah Scored.” Carlson indicated that “Dinétah Scored” is synonymous with several names in the literature (1965:64), and particularly indicated it is identical with Dittert’s “Dinétah Utility” (Dittert 1958b:20).

Presumably it is the same as Brugge’s “Dinétah Gray.” Brugge’s name of “Dinétah Gray” (1963, 1981b, 1982) is commonly used for this kind of pottery (Marshall 1991:25 ) but it should be clearly understood that this discussion refers to the pottery described by Carlson (1965). Dittert’s original definition of “Dinétah Utility” is brief:

The most common pottery type is Dinétah Utility, a thin walled, dark gray to black pottery with sand temper. When the vessel form is definable, it is a tall jar with a round to conical bottom, slightly constricted neck and flaring rim. Light to moderate scoring is apparent on the surface. (1958a:20)

Dittert illustrated two sherds of Dinétah Utility (Dittert 1958a:19, Figure 9A). There is no mention of surface texturing or modifications of any kind other than scoring. Dittert also defined a second type “Gobernador Indented” which was identical with Dinétah Utility in basic technology, but has an indented surface:

In the restored examples the shape and paste correspond with Dinétah Utility but the surface is indented similar to the Jemez culinary wares of that period. The type is considered to be a local adaptation of an introduced texturing style. (1958a:20)

Dittert illustrated one sherd of Gobernador Indented (1958a:19, Figure 9B). Both types were briefly described again in the survey report and illustrated (Dittert et al. 1961:152-53, Figure 36 a-d). Dittert’s basic definitions were reiterated and referred to throughout all of the Navajo Reservoir District reports, but there was never a detailed description of the types, as had been promised in the 1958 report (Dittert 1958b:20, footnote). The basic type, using the name “Dinetah Scored,” was first adequately described by Carlson in 1965. In regard to surface finish, Carlson (1965:64) said, “All examples except the bowl exhibit deep or shallow, horizontal, vertical or diagonal, striations on interiors and exteriors probably caused by rubbing with a corn cob.” As with Dittert’s description

for Dinétah Utility, there is no mention of surface modification other than the scoring or the striations.

Brugge presented a description of this kind of pottery based on collections from 278 sites made for the Navajo Land Claim. In regard to surface finish he observed:

*Surface Finish:* Interior usually wiped with shredded juniper bark or corn husks, sometimes scraped with a corn cob or smoothed, rarely lightly polished, or combination of these techniques; exterior usually scraped with a corn cob, sometimes wiped with shredded juniper bark or corn husks or smoothed or rarely lightly polished. Usually scattered small mica glints on the surface. (1963:5)

More recently, Marshall (1991:251) had occasion to inspect 2,203 sherds on his survey of the pueblitos, most of which were this kind of pottery. He used the term “Dinetah Gray.” He reported that 69.4 percent of

the sherds were plain smoothed surface, and 30 percent were plain striated. Only one rim sherd from the survey has incised designs (Marshall 1991:253). It is important to observe that Marshall reported only three sherds of Dinétah Indented (1991:252, Table 72). It should also be noted that there were no sherds of Dinétah Indented from Tapacito Pueblito (LA 2298), which has long been regarded as the earliest dated pueblito, constructed in A.D. 1694 (Towner and Dean 1992).

In other words, in the existing literature for pre-1750 Navajo sites from the Upper San Juan drainages where surface finish is mentioned, the plain pottery (Dinétah Gray, Navajo Utility, Dinétah Utility, or whatever name was being used at the time) is either plain smoothed or striated, apparently from scraping with a corncob or wiping with shredded juniper bark or corn husks. There is no mention of surface decorating with fingernails, or sticks, or the tips of fingers except on Gobernador Indented, and according to Dittert (1958a:20), this seems to be a smoothed, indented corrugated similar to Jemez culinary ware.

#### *Surface Treatment of La Plata vs. Gobernador Indented Sherds*

The ceramics from LA 49498 in the La Plata Valley have been assigned to the basic type “Dinétah Gray” by A. D. Reed and Horn (1988a:60), with further division into a plain grayware, designated Dinétah Gray, “and a grayware decorated by bands of fingertip impressions” (1988a:60). This decorated variety was termed “Dinétah Gray, Gobernador Variety” (1988a:62, Figure 5-24). They regarded this variety as synonymous with

Gobernador Indented (1988b:60) as defined by Carlson (1965:65-68). Reed and Horn note that the two variants are distinguished only by the presence of decorative indentations of which they say:

Decorated Dinétah Gray sherds are classified into the Gobernador Variety. Decorations consist of rows of crescentic indentations, apparently made by impressing fingertips into the vessel while still in a plastic state. The indentations were made after coils had been obliterated and the vessel walls smoothed... . As many as three rows of impressions were observed on sherds with rows separated by between 0.8 and 1.6 cm of undecorated surface. (1988a:64)

I was able to examine all of the ceramics from LA 49498. One of the most striking features of the fingertip decorations on some of the sherds is their placement in patterns unrelated to the original coils. I was also able to examine the Gobernador Indented sherds from LA 333 in the Navajo Reservoir District, excavated by Dittert in September 1956, which has

generally been treated as among the very earliest Navajo sites in the District (Eddy 1966:44). These unquestioned Gobernador Indented sherds do not show indentations in patterns like those from LA 49498. Although there is a major need to make a careful analysis of these two kinds of pottery, it is my opinion that the fingertip-impressed pottery from LA 49498 is not the same as the Gobernador Indented pottery from LA 3331 or the Navajo Reservoir District in general. In my opinion, the fingertip-indented pottery from LA 49498 is not Gobernador Indented, and should not be equated with that pottery type. In contrast, the pottery from LA 49498 more closely resembles the fingertip and fingernail surface designs on Uncompahgre Brownware pottery from near Grand Junction (Annand 1967) and Montrose, Colorado (Buckles 1971). My opinion is this pottery is better regarded as a southern version of Uncompahgre Brownware (Annand 1967; Buckles 1971; A. D. Reed 1988) and the product of protohistoric Utes.

### Conclusion about the La Plata Valley Sites

It is my position that the historical and ceramic evidence as reexamined above means that the “Dinétaah phase” in the La Plata River valley was Ute in origin and that the La Plata Valley north of the San Juan River was Ute country beginning by at least A.D. 1500. We should, therefore, redefine these sites in terms of A. D. Reed’s Ute chronology (1988) and drop the term “Dinétaah” when referring to them. Having redefined the La Plata River protohistoric sites as Ute in origin, I think the rest of the archaeological evidence in support

of the revived Dinétah phase (Winter and Hogan 1992) adds up to very little. As discussed above, most of the sites Winter and Hogan discuss are inadequately dated, not Navajo, or both. Accordingly, my 1981 interpretation of Navajo history must still be regarded as essentially correct.

*Seventeenth-Century Navajos and the Piedra Lumbre Phase*

As I said before (1981:314), undoubtedly some wandering Navajos were beginning to explore and possibly live in the San Juan drainage during the seventeenth century. Sooner or later we should find some of these sites, and there may be valid seventeenth-century Navajo sites among those cited by Winter and Hogan (1992). However, in general I hold to what I stated earlier, that “the existence of such wanderers would not modify the basic thrust of the available evidence that the majority of ancestral Navajos were living close to the eastern Pueblos in the seventeenth cen-



ture, and that they did not move west until the late 1600s” (1981:314). More specifically, I maintain, the majority of the seventeenth-century Navajos were living in the Chama Valley, east of the Continental Divide, where they were responsible for the Piedra Lumbre phase archaeological complex (1979, 199).

Reeve prepared a series of articles describing the early Navajo mainly from the perspective of Spanish documents (Reeve 1956, 1957, 1958, 1959), but also relying upon Hall’s unsubstantiated tree-ring dates, in which the Piedra Lumbre Valley was regarded as an area defining the frontier of the Navajo province and a place from which they launched raids into the Rio Grande Valley, but not a place where they lived on a permanent basis (1956:302). In Reeve’s view the Navajo were living in the Largo-Gobernador-Upper San Juan Districts before 1700:

The Province of Navaho included the canyons that stem in a southeasterly direction from the Rio San Juan where it flows in a southwesterly direction in New Mexico... . They ranged as far east as the Piedra Lumbre and raided into the Rio Grande Valley, but their habitations were in the tributary canyons of the Rio San Juan. (1956:302)

Reeve’s viewpoint was reiterated by Ellis (1975:39): “In the seventeenth century Navajos lived in the Gobernador Canyon... . A few probably drifted into the Chama.” More recently, Wozniak (1992) has summarized essentially the same documents that Reeve utilized and reached the same conclusion. Previously, I have examined these documents in some detail and maintained that there are no Spanish records which

locate the Navajo west of the Continental Divide (i.e., in the Largo-Gobernador region) before 1696 aside from references to a military expedition by Juan Domínguez de Mendoza in 1678 (Reeve 1956:295) which may have gone into the Largo region (C. F. Schaafsma 1975a:21). However, there are significant problems with the Mendoza reports (C. Schaafsma 1981:312) that render his accounts suspect. Like Reeve (1956), Ellis (1975), and Hester (1962a), Wozniak assumes as a given that Navajos were in the Upper San Juan drainages before 1690 or 1694 (Towner and Dean 1992). However, this assumption appears to rest largely upon Reeve's 1956 acceptance of Hall's tree-ring dates (Reeve 1956:301). The historical evidence alone does not demonstrate a pre-1690/1694 Navajo presence in the Upper San Juan drainages and there is no reliable archaeological evidence that requires elaborate and dubious historical arguments. Most important, Wozniak (1992) does not address the question of who was responsible for the Piedra Lumbre phase archaeological materials. My research problem began with a need to as-

sign ethnic identity to the Piedra Lumbre phase archaeological materials (1979). As I said before:

In contrast to the tenuous evidence for a Navajo occupation in the San Juan River drainage before 1696, we now have archaeological verification of a major occupation in the Piedra Lumbre Valley ... that is very hard to understand unless the sites are the remains of the “Apaches de Navahu” who were reported to be in the Chama River Valley by 1626-1629, and were specifically reported in 1706 by Governor Cuervo y Valdez to be *living* in the Piedra Lumbre Valley. (1975a:21)

The Piedra Lumbre phase sites are not suggestive of a temporary staging area for raids or trading expeditions into the Rio Grande Valley. They are permanent habitations where people were maintaining flocks of sheep and goats (C. F. Schaafsma 1975a:22). The ethnic identification of these sites was addressed in considerable detail in 1979 (Schaafsma 1979) and, as I maintained in my recent review of the historical documents relating to seventeenth-century Navajos in the Chama Valley, most are still reasonably regarded as the habitations of seventeenth-century Navajo (1992). I continue to maintain that the Navajo did not live in any significant numbers west of the Continental Divide until after the disturbed times following the 1680 Revolt, the 1692 Reconquest, and the abortive Revolt of 1696. It was only after 1696 that they joined with various refugee Pueblo people and the two groups jointly moved into the drainages of the Upper San Juan River (C. F. Schaafsma 1978, 1981).

In contrast with Wozniak (1992), Kemrer (1992) and

Carrillo (1992) made intensive reviews of the Piedra Lumbre archaeological complex and offered their reasons that the sites were produced by Tewas (Kemrer 1992) or Hispanics (Carrillo 1992). In 1979 I utilized a method for developing models for each ethnic group based upon what we could expect their archaeological remains to be like in the period ca. 1640-1710 (there does not appear to be any argument about the dates of the sites). I then matched the empirical archaeological remains against each model, one by one, and rejected those which clearly did not fit the models. I was left with the seventeenth-century Navajo as the ethnic group which best fit the archaeological materials, and duly noted that it was not a perfect fit since we probably had never seen seventeenth-century Navajo sites before. We certainly had never seen seventeenth-century Navajo sites in the Chama Valley in close economic interaction with the Rio Grande Valley Pueblos. While I respect their efforts, I cannot agree with them, and the interested reader is invited to investigate the method and data presented in my 1979

report. In other words, the Tewa and Hispanic alternatives were rejected in the 1979 study, and I still reject them. The only responsible candidate remains the seventeenth-century Navajo.

The main difference I would like to emphasize is that one of the sites Kemrer excavated (AR 423 or LA 25501) is clearly a ca. 1550 Tewa site. This was misidentified on the 1975 survey and grouped with the Piedra Lumbre phase sites (C. F. Schaafsma 1976:98). This extremely interesting site has never been published to my knowledge. One Tewa site, however, does not make the others Tewa sites.

In summary, the general reconstruction of a late, High Plains entry of the southern Athapaskans, ancestral Navajo included, presented by D. R. Wilcox (1981), extended by me, with an emphasis on the Piedra Lumbre phase (1981), and summarized by Eddy et al. (1984) still best fits the available data in regard to the origin and post-Revolt spread of the Navajo. It has been argued here that the A.D. 1500-1700 archaeological sites in the La Plata Valley are Ute in origin and are geographically near to and only slightly earlier than the Ute rancherias visited by the Rivera party in 1765. Accordingly, reconstructions of Navajo culture history that depend upon those sites being ancestral Navajo (Winter and Hogan 1992) must be reconsidered.

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Archaeological Sites,” which they organized for the Society for American Archaeology meetings in St. Louis, Missouri. I would also like to thank David Wilcox and an anonymous reader for the University of Utah Press for many insightful comments and suggestions that I have tried to take into account. I also appreciate the continuing interest of Jeffrey Grathwohl in my perspective on this subject. Thomas Chavez kindly gave me permission to photograph the Spanish maps in Michael Weber’s exhibition at the Palace of the Governors in 1988. Laura Holt and Tracey Kimball, librarians at the Laboratory of Anthropology, have assisted me with many obscure requests and interlibrary loans. It was they who found the elusive paper by Donald Cutter. Polly Schaafsma has discussed this topic extensively with me since 1974 and her broad-ranging knowledge of early Navajos has constantly helped me maintain a steady course.

### 3

## The Protohistoric Transition in the Northern San Juan Region

Gary M. Brown

### Introduction

The transition from prehistory to the time of European colonization is one of the least understood periods of Southwestern cultural history. Unlike some parts of North America, the transition in the Southwest was long; the initial Spanish Entrada between 1539 and 1542 was followed by a half century of minimal contact. Eventually, Spanish colonization during the seventeenth century focused on a single region—the Rio Grande Valley and its immediate hinterlands. At the time of the Pueblo Revolt of 1680, few natives across the Continental Divide in the San Juan Basin had seen a Spaniard or even artifacts of European manufacture, although the effects of disease, encroachment from displaced native groups, and down-the-line verbal accounts of the Spanish occupation of the Rio Grande Valley had altered their way of life. Just how significant these indirect impacts were cannot be evaluated without knowing what life was like in precontact times.

Archaeological data from unobtrusive sites occupied by non-Puebloan peoples during the protohistoric period are needed to obtain this knowledge. Rather than rely on historical documents and ethnohistory to describe these conditions, archaeological and

ethnoarchaeological data are critical for elucidating both the historic and protohistoric periods if we are to follow the transition through in a consistent and continuous manner from prehistory into more recent times. In the San Juan Basin, it is not until well into the nineteenth century that reliable written records exist.

### *Research Orientation*

This paper is concerned with the cultural affinity, origins, and dynamics of aboriginal populations in the Upper San Juan drainage during the pro-



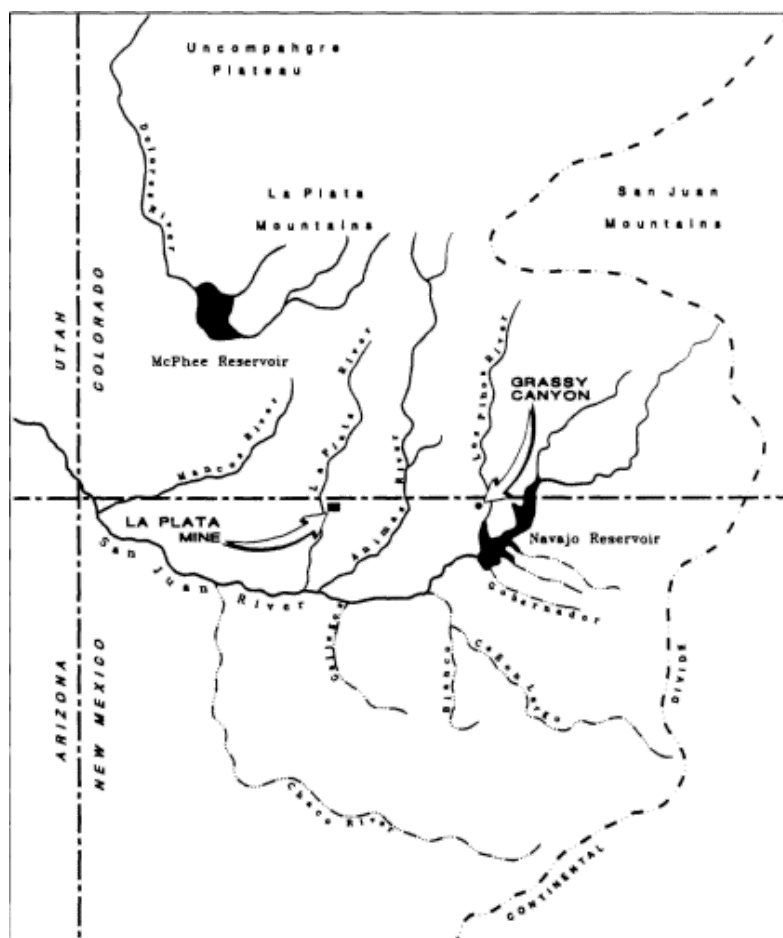


Figure 3.1.

Map of the Upper San Juan drainage basin showing physiographic features and La Plata Mine and Grassy Canyon project areas discussed in text.

to historic period (Figure 3.1). Particular emphasis is placed on the area north of the San Juan River (i.e., the northern San Juan region) because this region was the scene of shifting occupations that are essential to describing patterns of cultural affinity and dynamics throughout the Upper San Juan area.

Basic time/space parameters amenable to understanding these topics are quite poorly developed; there is a lack of consensus regarding both the

terminology and implications of the available systematics and data. The question of who occupied sites is frequently answered on the basis of where they are located and when they were occupied rather than cultural traits and assemblage characteristics. Such a simplistic approach is frequently necessitated by the paucity of the protohistoric archaeological record, but more productive analyses can occasionally be conducted at exceptional sites and especially with the benefit of multisite data bases. Such an analysis is attempted here. Most important, time, space, and cultural affinity are treated as separate variables without assuming that information on one or the other of these variables is sufficient for addressing another.

The northern San Juan region is best known for a rich Anasazi prehistory spanning the Basketmaker II through Pueblo III periods, culminating with the presumed abandonment of the region and surrounding areas during the thirteenth century A.D. Ethnographically, the northern San Juan region was Ute territory, whereas most areas south of the San Juan River were inhabited by Navajo groups during the early historic period. Linguistically, Utes and Navajos are very distinct, speaking Numic and Athapaskan languages, respectively. Southern Athapaskans (Apaches and Navajos) are thought by most anthropologists to be derived from a northern subarctic homeland. Both the timing and route of the Southern Athapaskan “migration” are debatable, based primarily on linguistic evidence. Also controversial is the hypothesized Numic spread across the Great Basin from a southern California origin over the course of the

last millennium. D. A. Young and Bettinger (1992) have developed a computer-simulation model based on relatively abundant linguistic, ethnographic, and archaeological data indicating a northeastward movement of Southern Numic groups (Utes and Southern Paiutes) across the southern Great Basin, ultimately into the northern Colorado Plateau and neighboring areas early in the protohistoric period. Although they suggest that the Southern Numic intrusion into the northern Southwest followed, rather than instigated, the Anasazi and Fremont collapse (1992:95), much more archaeological evidence is needed to address this transition, as with the replacement of Anasazi populations by Southern Athapaskans in much of the eastern and central Southwest.

While distinct culturally, archaeological remains of Utes and Navajos are similar, with material culture rooted in a long past of hunting and gathering and a short past in which this type of mobile life-style incorporated rather limited plant cultivation. Little is known about either group prior to the historic period, but both the Ute and the Navajo appear to have been quite mobile, even before the introduction of horses. In fact,

the protohistoric transition, as described here for the Navajo, is characterized by a significant decrease in residential mobility.

The use of maize by protohistoric Athapaskan groups appears relatively minor, and there is some possibility that maize was obtained through exchange or raiding rather than cultivated. Maize and possibly beans have been recovered from protohistoric contexts in La Plata Valley, but wild plants, such as goosefoot, grasses, cactii, and wild game, particularly deer and lagomorphs, dominate the assemblages (Brown and Hancock 1992:85). A logistical system of settlement and subsistence is inferred, and cultivation and domestic animal herding were not important economic pursuits during the protohistoric period, at least in the northern San Juan region. Far less is known about early Numic subsistence and settlement; virtually no data are available from positively identified protohistoric Numic sites in the northern San Juan region or adjacent areas.

The effects of the Spanish Entrada varied considerably across the Southwest. The initial effects stemmed from a wave of European diseases throughout North America, preceding direct contact between Europeans and Native Americans in most areas and causing severe depopulation of Puebloan settlements between 1520 and 1540 (Dobyns 1983; Ramenofsky 1987). There is evidence of interaction and possibly even alliance formation between protohistoric Navajos in the San Juan Basin and Puebloan groups along the Rio Grande (see Reed and Reed, this volume) suggesting that European diseases may have been transmitted into the

northern San Juan region by the early 1500s. The initial Spanish Entrada in the Southwest was brief, dating from 1539 to 1542, followed by a hiatus in direct European influence. Spanish expeditions did not resume until forty years after Coronado's departure in 1541, and colonization did not begin until 1598 when permanent Spanish settlement of the Rio Grande was initiated. European influence intensified along the Rio Grande, but exploration and colonization were still intermittent throughout much of the Southwest until after a second hiatus in Spanish occupation between the Pueblo Revolt of 1680 and the Spanish Reconquest of 1692-1696.

The archaeological data for describing cultural affinities, origins, and dynamics of the northern San Juan region during the four centuries intervening between the Anasazi occupation and the historic period provide most of the information used in this paper. Although research has been limited, recent excavations have documented protohistoric occupation in several parts of the northern San Juan region and produced data from a few well-dated sites. How these data can be systematized and used to ad-

dress the anthropological issues discussed above is my primary concern. We need to critically evaluate both the temporal placement and cultural affiliation of protohistoric sites, but these twin problems must be distinguished conceptually and evaluated on the basis of independent data if either temporal or cultural parameters are to be identified successfully. Without such fundamental control of the archaeological data, questions about origins and dynamics are moot.

### *Research Context*

Emerging perceptions of the protohistoric transition have themselves gone through two intellectual transitions in just over a decade. Although tentative evidence of protohistoric Navajo occupation was produced during the late 1950s and early 1960s by the Navajo Reservoir Salvage Project (Dittert 1958b; Dittert et al. 1961), the hypothesized Dinétah phase was treated with skepticism, even by some investigators on the project (Eddy 1966; Schoenwetter and Eddy 1964). During the 1980s, archaeological and chronometric evidence of protohistoric occupation was recovered in several parts of the northern San Juan Basin and interpreted in support of the Dinétah phase (Brown 1991; Brown and Hancock 1992; Hancock 1992; Hancock et al. 1988; Hogan 1989, 1992; Marshall 1985; A. C. Reed et al. 1988; A. D. Reed and Horn 1988a, 1990). Some of these investigators departed from Dittert's original model, which invoked a generalized Athapaskan migration from the High Plains, primarily in their zeal to push back the arrival of ancestral Navajo groups in the San Juan region from

the sixteenth to the fifteenth centuries (Hancock 1992; Hogan 1989; Winter and Hogan 1992) or even earlier (Reed and Horn 1990). For the most part, however, these studies adopted Dittert's formulation of the Dinétah phase as a fairly homogeneous complex resulting from large-scale migration into the Southwest.

The first transition in archaeological thinking on the protohistoric period in the northern San Juan region was, thus, a shift from a tendency to generalize a variety of results into a unified argument for early Navajo occupation similar to that hypothesized in the Navajo Reservoir district. The second transition is just under way, with a growing realization that various places and sites with purported early Navajo occupations reveal enormous variability, both within and between project areas, as well as through time. Generalizations are giving way to an appreciation of how intensive and diverse protohistoric occupations were in the San Juan region. Archaeologists aware of this diversity have abandoned previous generalizations, but there is currently little structure or consensus about

the protohistoric, or even how data might be organized and interpreted in a way more compatible with the cultural diversity now apparent during the period. As with the history of Southwestern archaeology generally, normative thinking has failed to provide an adequate frame of reference for explaining diversity.

Patterns of temporal and spatial variability in the archaeological database currently available in the San Juan area are described in the following pages. As noted, the major emphasis is the northern San Juan region. My interpretation of this database suggests that cultural variability and dynamics are much too great for normative time/space frameworks to be useful.

Describing the area as Ute territory during the protohistoric period (see Schaafsma, this volume) is not only incorrect but also overlooks the most interesting aspect of the protohistoric transition in the northern San Juan region, a transition best characterized in terms of Ute territorial expansion across the northern Colorado Plateau and Navajo cultural intensification in the face of Ute encroachment from the north and various population pressures on the eastern and southern margins of the San Juan Basin.

### Temporal Patterns

A distinction is made here between archaeological and cultural chronologies. The first is concerned strictly with ordering archaeological data into a temporal sequence without regard for cultural affinity, whereas the second is more sensitive to cultural variability and processes. Chronometric data may be sufficient to place



a site component into an archaeological chronology, but additional information about who occupied the site is necessary to reliably employ a more specific cultural chronology or regional sequence. There is overlap and feedback between the two, but building archaeological chronologies without a priori assumptions about cultural variability helps minimize circular logic in using chronological data to analyze cultural processes and dynamics. For all time periods and areas, basic questions of cultural affinity are relevant for establishing a regional sequence, but the evidence from each site must be evaluated on its own merits.

One of the few serious attempts to distinguish between Utes and Navajos archaeologically is Dean's reassessment (1969) of archaeological and dendrochronological data from Structure 5 at Talus Village on the Upper Animas in Southwestern Colorado. Dean suggests that this anomalous log structure, originally presumed to be a Basketmaker dwelling (E. H. Morris and Burgh 1954), was built by Utes during the 1700s. He acknowledges that conical huts similar to Structure 5 were used by

TABLE 3.1 Archaeological and Cultural  
Chronologies Encompassing  
the Protohistoric Transition in the Northern San Juan  
Region.

| <i>Years A.D.</i> | <i>Time<br/>Period</i> | <i>Navajo<br/>Phase<br/>Sequence</i> | <i>Ute<br/>Phase<br/>Sequence</i> |
|-------------------|------------------------|--------------------------------------|-----------------------------------|
| 2000              | Modern                 | Reservation                          | Reservation                       |
| 1900              | Historic               | Cabazon                              |                                   |
| 1800              |                        | Late<br>Gobernador                   | Antero                            |
| 1700              |                        | Early<br>Gobernador                  |                                   |
| 1600              | Protohistoric          | Dinétaḥ                              | Canalla                           |
| 1500              |                        | Pre-Dinétaḥ?                         |                                   |
| 1400              | Late<br>Prehistoric    |                                      | Chipeta?                          |
| 1300              |                        |                                      |                                   |

Navajos in the northern San Juan region, but Dean augments his detailed analysis of the tree-ring and architectural evidence with a thorough consideration of the excavated features and artifacts, still noting that competing hypotheses of Navajo, Pueblo, or Jicarilla Apache occupation cannot be entirely ruled out (Dean 1969:37) (see also Kearns, this volume). Such



explicit attempts to pinpoint cultural affiliation at protohistoric and historic sites are rare. Additional studies of this sort are needed to refine the coarse-grained cultural chronologies currently available in the northern San Juan region.

The basic archaeological chronology encompassing the protohistoric transition and both Navajo and Ute cultural chronologies are contrasted in Table 3.1. The phase sequences of both cultural chronologies are provisional and very likely will be revised as research on the protohistoric period progresses. The phase sequences have barely been refined to the point where they can productively serve as testable constructs to guide future research. The absolute dates will probably also be modified as additional chronometric data are gathered.

### *The Archaeological Chronology*

The concept and use of the term "protohistoric period" varies considerably. In accordance with a purely chronological emphasis on establishing temporal controls, the protohistoric period refers here to a rather arbitrary and general block of time comprising the transition between prehistoric times and recorded history. Following D. R. Wilcox and Masse's pan-Southwestern perspective (1981:14), the protohistoric period is dated between A.D. 1450 and 1700, and implies little more than an attempt to identify occupations that date just before, at, or soon after Spanish contact and colonization. These chronological parameters are more compatible with regional artifact-based chronologies than most alternatives and, thus,

they are useful archaeologically. The protohistoric period is preceded by the late prehistoric period and followed by the historic period.

Although general and somewhat arbitrary, the protohistoric as a pan-Southwestern period encompassing the time from A.D. 1450 to 1700 serves heuristic and analytic purposes in its recognition of significant changes even before the Spanish Entrada.

This perspective is particularly appropriate in the case of the Navajo. It also recognizes the importance of changes after 1700, because direct contacts were limited in most places until about that time.

Subsequently, the historic period refers to a time of change more directly associated with European colonization. As a point of departure, this time frame is selected and the study area is defined in relatively neutral terms, without prior assumptions about the cultural affiliation of the inhabitants. The northern San Juan region encompasses an area typically associated with the prehistoric San Juan or Mesa Verde Anasazi. The cultural affinity of protohistoric occupants of this region is of great concern, but neither the time period nor the region are defined culturally.

*The Cultural Sequence*

The cultural histories of Southern Athapaskans and Southern Numics are subjects of ongoing debate, including a mix of linguistic, ethnohistoric, and archaeological evidence. Even much of the historic period is unclear. The Spanish records provide few reliable data specific to Navajo or Apache groups and even less information on their Numic-speaking neighbors to the north and west. From Santa Clara Pueblo, Benavides attempted to Christianize the Indians he first referred to as “Apaches de Navahú” during the 1620s, claiming their territory extended from the Chama Valley east of the Continental Divide to the west for hundreds of miles throughout what is now northern Arizona (Correll 1979:3). His accounts, possibly including the renowned descriptions of vast Navajo cornfields, are greatly exaggerated. Other early Navajo ethnohistoric data are derived mainly from observations of what appear to be Athapaskan raiders and traders at the pueblos, along with occasional Spanish military excursions against Navajos in the San Juan Basin. Even during the 1700s, systematic documentation of Navajo groups by the Spaniards is intermittent. In 1776, the Dominguez-Escalante expedition crossed the northern San Juan region, noting that the San Juan River (Rio Grande de Navajo) separated the Navajo province to the south from the Ute province to the north (Bolton 1950:138).

From an archaeological perspective, Navajo occupation during the protohistoric period is associated with the Dinétah phase, first identified by the Navajo Reservoir

Salvage Project (Dittert 1958b; Dittert et al. 1961; Hester 1962a; Hester and Shiner 1963). Many archaeologists view the Dinétah phase as the earliest Athapaskan occupation of the San Juan area, but the formalized and well-adapted nature of the archaeological complex described at some sites suggests local antecedents (Brown 1991; Brown and Hancock 1992). As discussed below, the Dinétah phase can be attributed to ancestral Navajo groups familiar with the local environment. Their precursors have not been identified, although at least one ephemeral aceramic occupation (LA 59954) has been dated chronometrically between A.D. 1350 and 1500 at La Plata Mine (Brown 1991: 104-20). Thus, human presence between the Anasazi abandonment of the San Juan region ca. A.D. 1300 and the beginning of the Navajo sequence ca. A.D. 1500 can be inferred, although LA 59954 resembles neither typical Anasazi nor Navajo manifestations. The subsequent Gobernador phase is traditionally associated with the early historic period, but recent research indicates an earlier origin, at least for its main diagnostic Gobernador Polychrome (Brown et al. 1992; L. S. Reed and Reed 1992b).

Navajo occupations later in the historic period include the Cabezon phase in the San Juan Basin and more recent phases in the basin and elsewhere dating to the interval of Navajo incarceration at Bosque Redondo and after their release from captivity.

Dating of the Navajo cultural sequence is currently in a state of reevaluation. Dittert (1958b; Dittert et al. 1961) originally placed the beginning of the Dinétah phase between 1550 and 1600. There has been a recent tendency to push back the early part of the phase one or more centuries based mainly on radiocarbon dates clustering between A.D. 1300 and 1700 (Hancock 1992; Hogan 1989; A. D. Reed and Horn 1990). My own tendency has been to focus on the later radiocarbon dates from particular site contexts and seriously consider the possibility that early dates, especially from sites that also have late dates, are attributable to Navajo use of dead wood for both architecture and fuel, as well as cross-section effect and other factors that make radiocarbon dates from wood charcoal consistently overestimate cultural target events (Brown 1990, 1991; Brown and Hancock 1992). The discrepancy between radiocarbon dates on standard wood-charcoal samples and other carbonized materials such as bark, seeds, and plant macrofossils not significantly affected by deadwood use and cross-section effect supports a less dramatic revision of the early Navajo chronology. My evaluation of differences between radiocarbon dates and other dating techniques, including thermoluminescence, tree-ring dating, and obsidian-hydration measurements corroborate both the old-wood model, which posits a lag averaging 150-200



years between radiocarbon dates on charcoal from burned hogans and the time of occupation, and a more conservative chronology, somewhere between Dittert's original dating and the recent revisionist efforts. The results of my analysis indicate that placing the beginning of the Dinétah phase at ca. A.D. 1500 is the most parsimonious treatment of the data currently available.

The Gobernador phase has traditionally been dated between the Pueblo Revolt of 1680 or the Spanish Reconquest of 1692-1696 and the beginning of the Cabezon phase ca. 1770-1780. Changes such as the replacement of Gobernador Polychrome and Dinétah Gray with later ceramic types and the abandonment of much of the traditional Navajo homelandthe Dinétah regionprovide a convenient chronological transition between the Gobernador and Cabezon phases, although some of the changes may begin as early as 1750-1755 (David M. Brugge, personal communication, 1993). There has also been a recent tendency to push back the beginnings of the Gobernador phase. First, the co-occurrence of Gobernador Polychrome and sixteenth-century traded ceramics documented in surface assemblages suggests that Navajo decorated pot-

tery originated before the Pueblo Revolt (L. S. Reed and Reed 1992b; see also Reed and Reed, this volume). Second, the use of multiple dating techniques, including direct thermoluminescence dating of Gobernador Polychrome sherds from the Grassy Canyon site (LA 80854), indicates that at least one large excavated assemblage dominated by Gobernador Polychrome was manufactured prior to the Revolt, at least as early as A.D. 1650 (Brown et al. 1992). Thus, revising the age of the Gobernador phase to ca. 1650-1775 and the Dinétah phase to ca. 1500-1650 can be proposed. The transition might ultimately be pushed back earlier than 1650.

Although in 1776 Escalante described the area north of the San Juan River as the Ute province, there is archaeological and ethnohistoric evidence that this characterization reflects a shift in territorial dominance which occurred early in the 1700s. The fortified Navajo pueblitos for which the Gobernador phase is well known may have originated around the time of the Spanish Reconquest, but most construction is dated to the 1720s and 1730s (Towner 1992, and this volume; Towner and Dean 1992). By 1720, the Spaniards and Navajos had initiated a long period of peace partially motivated by the Navajos' need for allies in defense against Ute raiders (Correll 1979:54; W. W. Hill 1940; Reeve 1958). There is a scarcity of pueblitos and other evidence of eighteenth-century Navajo occupation north of the San Juan River; although many Gobernador and Dinétah phase sites are present, the proposed revision in dating suggests that many or even most Gobernador phase sites in the northern San Juan

region might conceivably predate the Reconquest. There is no inconsistency between the archaeological and ethnohistoric data; archaeologically, the Dinétah phase appears widespread in the northern San Juan region, as well as many areas south of the river, but Navajo occupation evidently contracted during the Gobernador phase as a century of conflict with Spaniards south and east of the Dinétah region was followed by Ute encroachment on the north. The northern San Juan region, according to the model presented here, should be characterized by a shift in cultural affinity between the protohistoric and historic periods.

At present, Ute occupation is difficult to recognize archaeologically. Buckles's Uncompahgre Plateau study (1971) in west-central Colorado assigned Ute remains to a broadly dated interval, the Escalante phase, ca. A.D. 1500-1880. Subsequent to Buckles's dissertation, five standing wickiups at three sites were tree-ring dated to the mid-1700s (A. D. Reed and Scott 1981:365). Dean's analysis of Structure 5 at Talus Village (1969) north of Durango documents an ephemeral occupation at this predominantly Basketmaker site which dates to the late protohistoric or early historic period; a tentative cutting date of A.D. 1774 is presented, along with

an argument for Ute occupation (Dean 1969:34). A very similar structure was excavated at 5LP353 south of Durango, also along the Animas River; this site is also interpreted as a Ute occupation, although no dates were obtained and what appear to be partially intact Dinétah Gray vessels account for most of the ceramic collection (Heikes 1979). Additional evidence of historic Ute activity on the northern margin of the San Juan region is available, including data recovered by the Dolores Archaeological Program at McPhee Reservoir on the upper Dolores River (Errickson and Wilson 1988; D. V. Hill and Kane 1988), but currently there is no basis for inferring Ute occupation during the protohistoric period. These data are compatible with Escalante's assertion that, in 1776, the northern San Juan region was Ute territory, but there is little information for estimating how long Utes had been in the area. Still, although early historic sites are uncommon in the northern San Juan region, archaeological evidence during this period might be more productively compared with Buckles's Ute cultural sequence (1971) than with the Navajo sequence that persists south of the San Juan River. During both the historic and protohistoric periods there is clearly a need to rigorously address the issue of cultural affinity at each site investigated, in addition to dating site occupations.

A. D. Reed (1988) has proposed a more refined chronology for the Eastern Ute occupation in western Colorado. Although the substantive basis for this sequence is minimal and the chronological analysis questionable, it is the most recent attempt to summarize

the Eastern Ute archaeological and chronometric data in a diachronic fashion. The Ute sequence begins with the Chipeta phase (ca. A.D. 1250-1400), a very tenuous aceramic occupation defined on the basis of pooled radiocarbon dates. The subsequent Canalla (ca. A.D. 1400-1650) and Antero phases (ca. A.D. 1650-1880) are similar to each other archaeologically, chronometric data again being the main justification for distinguishing between what are assumed to be protohistoric and historic manifestations. The situation is analogous to the Navajo sequence, with negative evidence the main criterion by which sites can be separated in the absence of chronometric data. Traits such as maize are believed to occur sporadically only late in the Antero phase. If so, the inclusion of domestic plant cultivation in the protohistoric Navajo economy would be a major difference between the Utes and Navajos.

Reed (1988) attempts to provide diagnostic criteria associated with his phase sequence. He identifies some Ute diagnostics, but the time depth proposed and the distinction between phases are problematic because both are based almost exclusively on chronometric data. The aceramic phase is most questionable, although it may be analogous to the

anomalous early protohistoric site at La Plata Mine (LA 59954). The Canalla and Antero phases share unnotched triangular arrowpoints, side- and basally-notched arrowpoints, “Shoshonean knives” (large leaf shaped bifaces with beveled margins and constricted blade outlines caused by repeated resharpening while hafted), and Uncompahgre Brownware. Although distinguishing early Ute from Navajo ceramics is difficult, D. V. Hill and Kane (1988) indicate that Ute pottery, formed with a paddle and anvil, is characterized petrographically by consistent alignment of inclusions in thin sections; coil-and-scraped Navajo pottery, on the other hand, displays random particle alignments (D. V. Hill 1991; D. V. Hill and Kane 1988).

What is lacking in Reed’s Ute chronology are type sites at which a particular phase can be convincingly dated and described. In my analysis of the Dinétah phase (1990), patterns in the pooled chronometric data revealed trends, but many of these trends simply underscored the consistent bias of radiocarbon dates on charred wood. This bias tends to exaggerate the true age of an occupation, a phenomenon demonstrated by Schiffer (1982, 1986) in the Hohokam case and F. E. Smiley (1985) for both Basketmaker and historic Navajo occupations on Black Mesa. Early dates are acceptable only from sites with reasonably good cultural contexts and suites of dates, preferably from various kinds of materials and different dating techniques. Without a type site for the Canalla phase, there is little basis for accepting the postulated protohistoric Ute occupation in western Colorado.

## Spatial Patterns

The foregoing discussion of Ute and Navajo cultural chronologies has necessarily considered some distributional aspects of the archaeological data. The spatial distribution of dated sites is considered in greater detail in this section. As with chronological parameters, descriptive subdivisions of archaeological space are first considered, followed by an interpretive discussion oriented toward cultural variability. The archaeological subdivisions are somewhat arbitrary, but they provide a suitable analytical framework for the subsequent consideration of cultural geography. Discussion of the cultural issues is linked primarily to what is known about the spatial distribution of archaeological traits.

### *Archaeological Subdivisions*

Kidder (1924) defined a series of spatial subdivisions of the San Juan area, later refined by Gillespie (1976) who lumped together a number of these

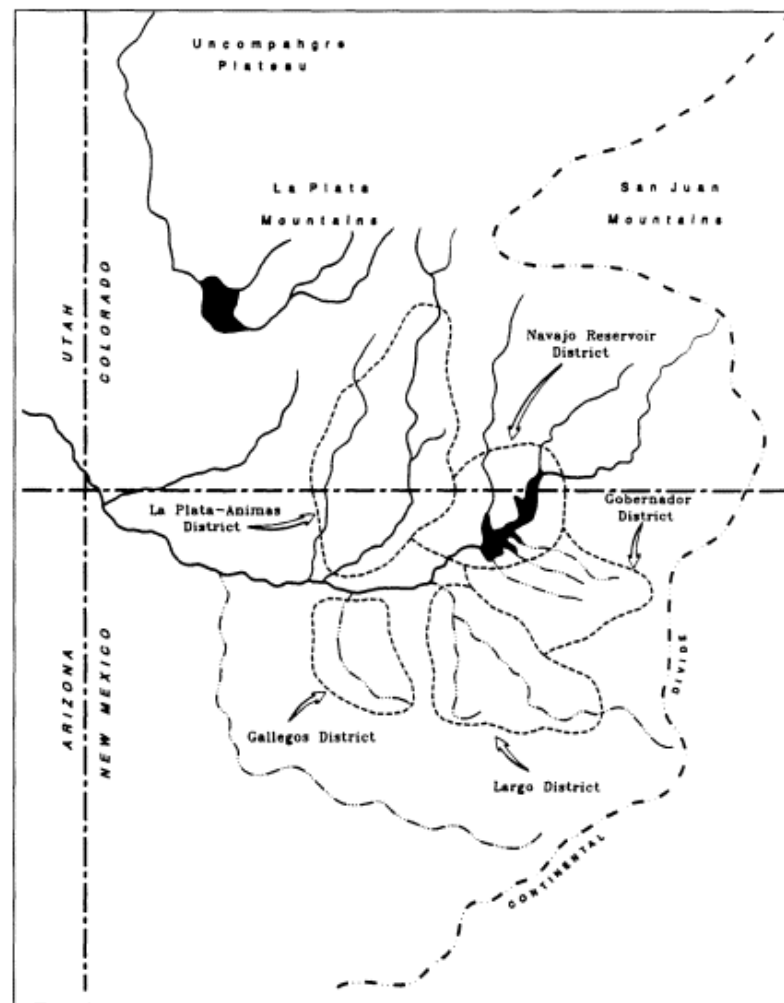


Figure 3.2.

Map of the Upper San Juan drainage basin showing archaeological districts in which protohistoric occupations interpreted as Athapaskan in origin have been identified.

“districts” into the northern San Juan region. These districts are essentially drainage units within which some clustering of Anasazi settlements and archaeological similarities within districts are apparent. Their relevance to protohistoric occupation is uncertain, but they provide analytic units for summarizing the archaeological data in order to evaluate the dis-



tribution of sites. Navajo occupations have been identified during recent years in some areas that lack substantial Anasazi occupations; thus, some districts discussed here have not been previously defined. As discussed below, the districts appear to have some additional value as heuristic units for understanding cultural geography during the protohistoric period.

Protohistoric occupations have been identified in the Navajo Reservoir, La Plata-Animas, Gobernador, Largo, and Gallegos districts. The La Plata-Animas District is in the northern San Juan region, whereas the last three districts are dominated by southern tributaries of the San Juan River; the Navajo Reservoir is centrally located at the heart of the Upper San Juan drainage basin (Figure 3.2). Protohistoric occupations in all five districts can be assigned to the Dinétah phase based on ceramic assemblages dominated by Dinétah Gray and without Gobernador Polychrome, as well as by chronometric data from numerous sites indicating pre-Revolt activity.

Early historic occupations interpreted as Navajo cultural components are present in all five of these districts, along with many additional areas to the south including Chaco Canyon, the Rio Puerco East, and Chuska Valley, as well as areas to the west in Arizona (see Gilpin, this volume; Roberts and Begay, this volume). In addition to Navajo occupation during the historic period, roughly contemporaneous occupations believed to be Ute manifestations occur in parts of Southwestern Colorado (e.g., Structure 5 at Talus Village in the north of the La Plata-Animas District

[Dean 1969] and sites in the upper Dolores River area [D. V. Hill and Kane 1988]). The archaeological data tend to corroborate sparse ethnohistoric references to the northern San Juan region as a transitional area between Ute and Navajo territories at this time. However, the archaeological data relevant to cultural affinity are limited largely to ceramic distributions. Only in rare instances, such as La Plata Mine, have excavations produced additional data on cultural affinity which indicate occupation by ancestral Navajo groups.

In sum, there is currently only minimal evidence of protohistoric Numic occupation, based on liberal interpretation of radiocarbon dates obtained at sites north of the northern San Juan region (A. D. Reed 1988). Early historic Numic occupations are better documented north of the region, although there is very slight evidence for Numic occupations within the northern San Juan region (Dean 1969; Errickson and Wilson 1988; D. V. Hill and Kane 1988; Hogan et al. 1991). If one were to draw a boundary line between Ute and Navajo areas on the basis of current archaeological evidence, this line would probably be drawn somewhere north of the Colorado-New Mexico state line, shifting south toward the

San Juan River as Numic sites appear during the early historic period and spread south, possibly reflecting Ute colonization and then expansion in the Four Corners area during the early 1700s or possibly late 1600s. The cultural implications of these archaeological time/space distributions are currently a matter of speculation, but some tentative interpretations of the data are discussed briefly in the following section.

### *Cultural Geography*

In order to understand the cultural geography of the northern San Juan region, the cultural affinity and dynamics of protohistoric-early Historic populations need to be discussed in greater detail. During the historic period, a shift from Navajo to Ute dominance is postulated in the northern San Juan region, whereas intensification of a defensive posture in the Largo and Gobernador districts south of the San Juan River is clearly attributable to Navajos, although the nature and extent of direct Pueblo interaction is debatable (Brown 1993; Carlson 1965; Farmer 1942; Hogan 1991; Keur 1944; Marshall 1991; Powers and Johnson 1987; Towner 1992, and this volume; Towner and Dean 1992). Also uncertain is the distribution of ancestral Navajo groups in the northern San Juan region during the protohistoric period, because the Dinétah phase is difficult to recognize archaeologically. Dinétah phase sites are especially difficult to distinguish from Ute occupations also characterized by plainware pottery, arrowpoints with side and basal notching, unnotched arrowpoints, conical log structures, and relatively brief site occupations. The case for protohistoric Athapaskan

occupation in the northern San Juan region, therefore, is contrasted with what is known about Ute archaeology. Because no definite Ute sites predating the early historic period have been defined in the Four Corners area, expectations about an early Numic occupation are speculative.

Although originally defined almost entirely on the basis of negative evidence, the Dinétah phase appears to have some distinctive characteristics. Its similarity to the Gobernador phase in most respects is the major reason that its integrity as a distinct phase was questioned by some investigators who suggested that sampling error might account for negative evidence, such as the absence of Gobernador Polychrome in the hypothesized Dinétah phase ceramic assemblages (Eddy 1966; Schoenwetter and Eddy 1964). Common traits not shared with Numic sites include Dinétah Gray pottery, grooved shaft abraders, forked-pole hogans, and formalized house and site layouts. These traits are present in both Dinétah and Gobernador phase sites. This co-occurrence appears to answer two ques-

tions: (1) the apparent continuity between the Dinétah and Gobernador phases suggests a connection, probably attributable to occupation by related cultural groups; and (2) the similar connection between the Gobernador phase and historic Navajo groups documented in both historical accounts and archaeological inferences indicates that this culture-historical connection can be regarded as Navajo.

Both intramural and extramural use of space during the Dinétah phase resembles that documented at historic Navajo sites in the Chacra Mesa area south of Chaco Canyon (Brugge 1986; Vivian 1960). In the La Plata Valley, these similarities include refuse areas and ash dumps southeast of the hogan and hearth-oriented activity areas south and/or east of the structure (Brown 1991; Hancock et al. 1988; A. C. Reed et al. 1988). The hogans at La Plata Mine have front-center hearth placement, but the suite of interior features is more limited than during the Gobernador phase, at least as defined in areas where such sites have been excavated (Eddy 1966; Vivian 1960). Most important are the formal architectural attributes of Dinétah phase hogans, including floors excavated into shallow polygonal pits prior to superstructure construction, a substantial earth covering over the forked-pole superstructure (presumably back dirt from the pit excavation), and, in at least one instance, a log-covered entry tunnel (Brown 1991; Brown and Hancock 1992). The resemblance of these features to those defined at Gobernador phase sites provides strong support for inferring Navajo occupations during the Dinétah phase.

Known Ute structures are much more expedient in construction technique. Wickiups described on the basis of both ethnohistoric and archaeological data have no earth covering and few intramural or extramural features, activity areas, or refuse deposits (Buckles 1971). Distinguishing Ute from Navajo plainware ceramic assemblages is complicated by overlapping attributes and the nondescript, utilitarian nature of both ceramic technologies, but some objective criteria do exist (D. V. Hill 1991; D. V. Hill and Kane 1988). Projectile points at both Ute and Navajo sites display side- and basal-notched and unnotched forms; these types are poor indicators of ethnic identity because they comprise protohistoric horizon styles throughout much of western North America. However, "Shoshonean knives," widespread at Numic sites in much of the Great Basin and Northwestern Plains (e.g., Frison 1978:80, Figure 2.23), occur at Numic sites north of the Four Corners area, but they have not been found at sites attributable to the Dinétah or Gobernador phases. Although many archaeologists attribute shaped, two-hand manos at early Navajo sites to scavenging of tools from Anasazi sites, their frequency nevertheless may be characteristic since they are not commonly reported

from Ute sites, even those located in areas occupied by Fremont groups whose sites also could be used as millingstone sources. In addition, ethnobiological data indicate a mixed economy of hunting and gathering supplemented by maize during the Dinétah phase, with more intensive use of maize at least by the 1600s at Grassy Canyon. Evidence of maize is exceedingly scarce at Ute sites. Thus, there are certain aspects of domestic architecture, site layout, stone tools, pottery, and subsistence that can be used to distinguish Ute from Navajo sites. Clearly, however, surface investigations may be inadequate to make the distinction at many sites.

The distribution of archaeological traits tends to augment ethnohistoric information in developing a comprehensive description of cultural dynamics in the northern San Juan region during the protohistoric transition. The region may have been disputed territory prior to systematic Ute encroachment, which is documented only after horses and guns were obtained by the Utes. Although Navajos obtained horses during the 1600s, increased residential mobility would have required a shift in economy and adaptation. Instead, horses did not initially alter the Navajo life-style dramatically. The Navajo settlement strategy remained semisedentary, probably becoming even more stationary late during the protohistoric transition with the acquisition of sheep. Like sedentary Pueblo groups, historic Navajos were subject to raids from nomadic peoples such as the Ute because, if they fled, their sites and agricultural fields would be left unprotected. Pueblitos evidently appeared as an adaptive response to

small-scale attacks from mobile Ute and Comanche raiders (Carlson 1965; Towner, this volume). Although these defensive sites were not entirely successful in the long run, the major labor investment represented by many pueblitos is best understood as the response of a group protecting a localized area.

## Discussion

The northern San Juan region provides an intriguing interface for examining both a temporal and spatial transition. During the protohistoric period, much of the region, as well as major portions of the San Juan Basin to the south of the river, was occupied by groups ancestral to the Navajo. Although there appears to be great spatial variability, protohistoric Athapaskan sites sharing a suite of Dinétah phase characteristics are common within the pinyon-juniper zone in many parts of the Navajo Reservoir, La Plata-Animas, Gobernador, and Largo Districts. The full spatial distribution of the Dinétah phase has yet to be mapped, but the middle and lower reaches of these drainage units comprise at least the majority of the Dinétah heartland of Navajo culture.



The situation to the east, especially across the Continental Divide, is far from clear, although the Piedra Lumbre phase seems to be marginal, at best, in terms of its relevance to Navajo origins. The farthest to the east where protohistoric Navajo materials similar to those discussed here have been recovered and dated is at a small campsite (LA 83858) in the upper reaches of the Canyon Largo watershed (Gavilán Canyon) on the west slope of the Continental Divide. A partial Dinétah Gray jar representing a distinctive local variant was excavated in association with a hearth at this site (Moore and Soldo 1991). The site yielded one radiocarbon and one thermoluminescence date suggesting a possible age as early as A.D. 1200-1400. The distinctive ceramic variety recovered and the absence of Dinétah phase traits other than pottery suggest that the site could be a candidate for pre-Dinétah phase occupation, but the evidence at present is minimal and further data from the area clearly are necessary before this intriguing site can be effectively interpreted.

Additional work also is needed to the north. Protohistoric Numic sites have yet to be identified in the northern San Juan region, making it difficult to assess the dynamics involved in the later Ute push to the south across the San Juan River during the historic period. Were Utes and Navajos in conflict during the protohistoric period, or did this competition stem from the later upheaval brought about during the early historic period? How early or late did Utes arrive in the Four Corners area? The issue of Ute origins is even less

clear than with the Navajo, but it is critical for understanding the protohistoric transition in the area.

Even as far north and west as the upper Dolores River, Ute occupation appears to have been slight. Possible protohistoric Ute sherds were identified at several sites investigated by the Dolores Archaeological Program, but technological attributes suggest they are nonlocal products (Errickson and Wilson 1988). This and the scarcity of Ute cultural resources suggest occasional use of the Dolores area, with little basis for inferring a significant occupation prior to the historic period.

Ethnohistoric data place the Utes in the area north of the San Juan River during the 1600s, although the description of these groups traveling north via the Rio Chama from Jemez Pueblo to return to their homes on the San Juan (Schroeder 1965:54) suggests a location on the uppermost reach of the San Juan, probably in Colorado, rather than in the Navajo Reservoir District or surrounding areas. Still, it is clear that a great deal remains to be learned about the Ute occupation of the northern Southwest. Archaeological evidence of Ute occupation during the seventeenth century should be present in parts of Southwestern Colorado, but problems recognizing these kinds of sites limit their incorporation into current models.

Continued research on the protohistoric period in the northern San Juan region is needed, especially with regard to the subjects of cultural affinities and origins. There are several strong cases for Navajo occupation during this period. One of the best and the earliest is LA 61852 at La Plata Mine (Brown 1991). This site contained several distinctively Navajo traits not shared with Numic sites:

1. Dinétah Gray pottery exclusively composes the ceramic assemblage. The ceramic technology clearly involves coil-and-scrape vessel construction, defined in both petrographic analysis and more obvious attributes of a partially reconstructed jar having thick, partially scraped coils.
2. Carefully shaped and polished, grooved shaft abraders. Two examples recovered at the site are similar to others from early Navajo sites throughout the Dinétah region, but not reported from Numic sites.
3. Forked-pole hogans represent a very distinctive architectural style. They are unlike wickiups in their size, earth covering, and occasional log-covered tunnel entryway. Structure 1 at LA 61852 displayed such an entryway. Other formal attributes of all three hogans excavated at the site, as well as others at La Plata Mine, include a polygonal floor excavated into a shallow dish-shaped basin before building the superstructure.
4. Site layout is formalized. Both intramural and extramural use of space resembles that documented at historic Navajo sites at Chaco Canyon and elsewhere. In La Plata Valley, similarities include refuse areas, ash

dumps south or east of the hogan, and hearth-centered activity areas. Interior hearths are slightly southeast of the center, toward the entryway.

LA 61852 is well dated to the early 1500s. A suite of radiocarbon dates on charred wood, bark, and juniper seeds provides tight chronological control for the site occupation and supports the old-wood model discussed earlier (Brown 1990). The bark and especially juniper seeds effectively date construction activity; the seeds were derived from green branches used to cover the log structures before a thick covering of earth was applied to coat and insulate the dwelling. These substantial structures reflect much less residential mobility than evident at temporary sites with brush structures, or, for that matter, any known Ute sites. LA 61852 and other Dinétah phase sites in La Plata Valley contain maize, not in the quantities that maize occurs at later Navajo sites, but certainly the occu-

pants grew corn to supplement their mixed economy. By A.D. 1500, then, we can infer a semisedentary lifestyle supported by gathering, hunting, and domestic plant cultivation. A significant population density can also be inferred in some areas, certainly in La Plata Valley.

A broad regional distribution of settlement during the Dinétah phase can also be inferred. There appear to be differences between the north and south sides of the San Juan River, as well as additional intraregional differences, but the distinctive characteristics of the Dinétah phase clearly are present at excavated sites in the La Plata-Animas, Navajo Reservoir, Gobernador, Largo, and Gallegos Districts. Subtle architectural attributes of protohistoric forked-pole hogans, including some that are best described as stylistic, have been documented in greatest detail in the La Plata-Animas District, but the distribution of similar earth-covered log structures built in shallow excavated depressions is being documented at sites in the other districts, including areas south of the San Juan (Honeycutt and Fetterman 1994; Hovezak and Sesler 1995).

The Grassy Canyon site in the Navajo Reservoir District provides a strong case for an Early Gobernador phase site predating the historic period (Brown et al. 1992). The hogan, although unburned, is morphologically similar to those at La Plata Mine; it has a well-preserved, log-covered entry tunnel, a dish-shaped floor excavated into a shallow pit, front-center hearth placement, and a substantial earth-covered log superstructure. The site was dated between 1600 and

1650, and differs from Dinétah phase sites in the abundance of Gobernador Polychrome and more evidence of maize cultivation than at any of the earlier sites. Grassy Canyon represents a transition from the Dinétah phase to the historic period when Navajo culture takes on distinctive influences from Pueblo interaction. Although Pueblo interaction is evident at protohistoric Navajo sites, assimilated traits such as Pueblo-style masonry, roof-support systems, and room block layouts do not appear until the very end of the protohistoric period. These traits first occur at pueblitos, the earliest examples built during the late 1600s (Towner 1992, and this volume; Towner and Dean 1992).

## Conclusions

Archaeologically, we are beginning to see past the biased and limited historical documentation of aboriginal groups in the San Juan Basin. Although protohistoric cultural resources are generally unimpressive, the archaeological data they have produced elucidate a rich and varied past with ample evidence to assume that diversity and change were the rules

and not the exceptions. There is obviously a great deal to learn, but some salient points are beginning to emerge and some previous interpretations can be discarded in light of the information now available.

Athapaskan peoples entered the area well before the Spaniards. Unless antecedents of the Dinétah phase can be identified elsewhere, there is no reason to doubt that Navajo culture, first recognizable around A.D. 1500, developed in the San Juan Basin. The earliest Dinétah phase sites exhibit a subsistence mix of hunting, gathering, and cultivation that appears to have been successful and additional dependence on local resources for house construction and artifact manufacture. If anything, greater evidence of exchange and extraregional interaction are hallmarks of the Gobernador phase. The distinctive constellation of traits that defines the Dinétah phase is interpreted here as the emergence of a local adaptation to the Southwestern environment by Athapaskan groups. This constellation and many discrete traits can be linked chronologically and culturally to the Gobernador phase, providing a continuous sequence that documents the in situ emergence of Navajo culture.

When Numic-speaking groups first arrived in the northern San Juan region is unclear, but their push south toward the San Juan River did not culminate before the end of the protohistoric transition, ca. A.D. 1700. The construction of small but defensible pueblitos north of the San Juan River as late as the 1750s might indicate that, during the early historic period, the northern San Juan region continued as the

scene of a dynamic process with Navajo groups maintaining or reasserting their territorial claim to this part of the San Juan Basin (cf. Towner, this volume). In my view, there is little archaeological evidence to support Schaafsma's (this volume) interpretation of the Dinétah phase in the northern San Juan region in terms of Ute occupation, but the ethnohistoric data on the Ute presence in the area that he summarizes suggest that we have yet to recognize the archaeological signatures of early historic Numic activity.

Adopting D. H. Thomas's Cubist perspective on the protohistoric period (1989), it would appear that once we determine the age and cultural affinity of a representative sample of sites in the northern San Juan region, a remarkably complex series of cultural dynamics will become apparent. We should not be surprised to learn that peoples of Numic and Athapaskan ancestry both inhabited this large area during the protohistoric period, or that their respective frontiers and the nature of interactions between groups varied through time. The history of Southwestern archaeology shows that monothetic culture areas, fixed cultural boundaries, and stable alliances were rare, if indeed they ever occurred. Perhaps the Dinétah homeland did exist as a stable core area, or perhaps it is sim-



ply a point in time and a temporary resting place fixed in the traditions of the Navajo people. Like the Anasazi before them, early Navajo groups seem to have frequently moved sites across environmental zones, to higher or lower elevations, away from their enemies, or closer to their allies. Limited control of time/space parameters and frameworks for understanding the protohistoric period should not deceive us into thinking that things are as simple as they may appear.

*Acknowledgments.* Numerous colleagues have shared insights on the protohistoric transition in the northern San Juan region. Most influential have been David M. Brugge, Alfred E. Dittert, David V. Hill, Meade F. Kemrer, Paul F. Reed, Curtis F. Schaafsma, Lori Stephens Reed, and David R. Wilcox. I also am grateful to Ronald H. Towner and Jeffrey S. Dean for the opportunity to participate in their symposium at the 1993 meetings of the Society for American Archaeology, as well as their comments before, during, and after the meeting. Ron's thoughtful and thorough critique of the symposium paper was instrumental in developing the present exposition. Reviewer comments, especially those of Dave Wilcox, also assisted immensely in the final revision. Computer drafting was performed by John A. Evaskovich and Steve Valencia. The assistance of these individuals is greatly appreciated, but they cannot be blamed for any problems with this paper since all offered feedback that was occasionally ignored or not fully understood.

4

## Radiocarbon and Tree-Ring Dating at Early Navajo Sites

### Examples from the Aztec Area

Jerry Fetterman

#### Introduction

Navajo origins and the arrival of the Athapaskans into the Southwest are topics of considerable importance to the understanding of the recent prehistory of the Southwest. Although some researchers (C. F. Schaafsma 1992) suggest that the Navajo arrived in the San Juan Basin sometime after the Pueblo Revolt of A.D. 1680, others have suggested a post-Anasazi occupation of the basin, possibly as early as A.D. 1350 (Hogan 1989; A. D. Reed and Horn 1990), by people who shared cultural traits with the Navajo. Hester (1962a) first devised a chronological scheme for ordering Navajo archaeological materials (see Towner and Dean, this volume). The two phases of interest here are the Dinétah phase (ca. 1550-1700) and the Gobernador phase (ca. 1700-1775).

The Navajo occupation of the San Juan Basin after A.D. 1680 is well dated and has been termed the Gobernador phase. It is best known for the construction of pueblitos and presence of Gobernador Polychrome, a locally produced thin, three-color painted ware. The Dinétah phase was created to explain site components in a stratigraphic position suggestive of an occupation

prior to the Pueblo Revolt but whose ceramic assemblages lacked Gobernador Polychrome (Hester and Shiner 1963; Brown, this volume). Ceramics on these sites consisted entirely of Dinétah Grayware, a ware also found on later sites (see Reed and Reed, this volume).

As a result of considerable archaeological research in association with energy development over the past decade, a number of sites with attributes of the Dinétah phase have been investigated. A recent summary of these excavation data (Brown and Hancock 1992) strongly suggests that a Dinétah phase does exist and can be tentatively dated between A.D. 1500 and 1700 (see Brown, this volume). Many researchers, although comfortable about the existence of the Dinétah phase as a discrete chronological and cultural unit (but see Schaafsma, this volume, for a different viewpoint), are not comfortable associating it with the earliest Athapaskan occupation of the Southwest. Thus, the precise chronological placement of early Navajo sites has become critical in resolving where and when the Athapaskans first entered the Southwest.

Unfortunately, even with the considerable amount of archaeological research conducted at Dinétah and Gobernador phase sites, our understanding of the chronology of these phases is poor. Perhaps our biggest obstacle to understanding the chronology is the lack of chronometric methods that date the target event (i.e., the date of occupation) with a high degree of resolution (Dean 1978). As shown below, the most common methods of dating archaeological phenomena in the area, radiocarbon dating and dendrochronology, often date events other than the target event. The dated events can significantly predate the target event as a result of cultural practices such as old-wood use (Schiffer 1982, 1986, 1987), as a result of the cross-section effect (F. E. Smiley 1985), and as a result of the destruction of the outer rings of a dated charcoal sample. (See Brown

1990 for a detailed summary of the problems associated with radiocarbon dating early Navajo materials). The following text provides several examples of how difficult it is to establish a chronology for Dinétah and Gobernador phase sites in the San Juan Basin.

### The Sites

As a result of mitigation work for the Arkansas Loop project, ten sites that contained protohistoric components were partially excavated by Woods Canyon Archaeological Consultants (WCAC). The sites are shown in Figure 4.1 and summarized in Table 4.1. All these sites were assigned a Navajo cultural affiliation based on several criteria, including the presence of the remains of forked-stick hogans, Dinétah Gray ceramics, and site layouts similar to those at later Navajo hogan complexes (Honeycutt and Fetterman 1994).

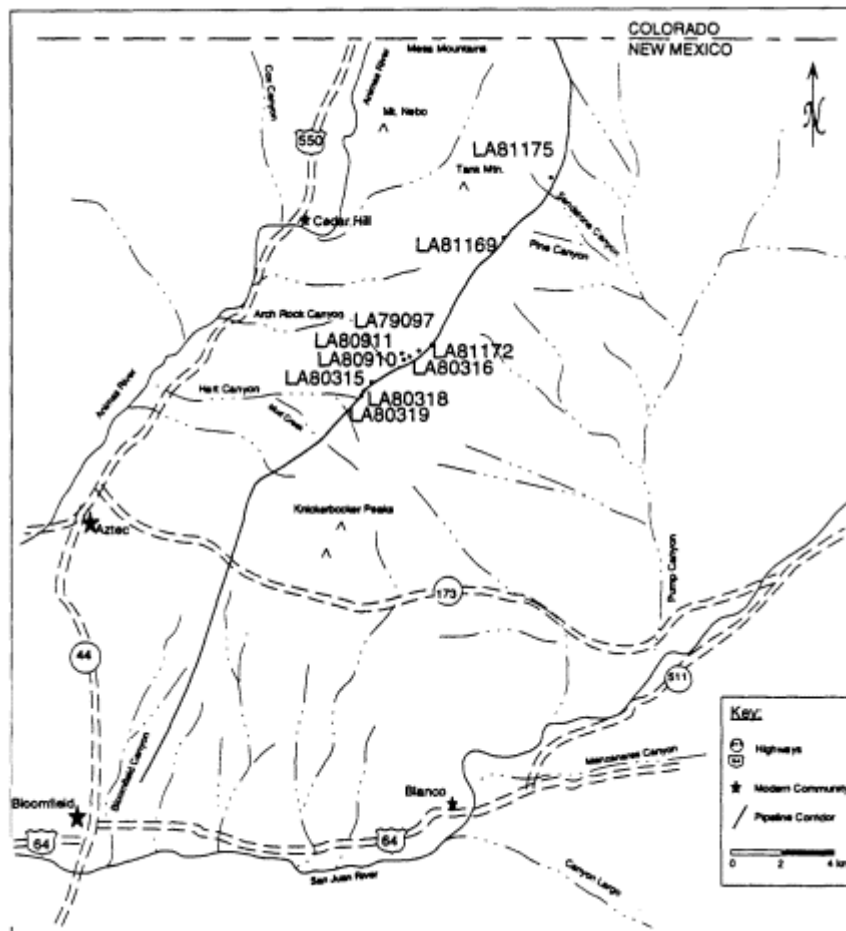


Figure 4.1.

Map of La Plata area sites discussed in text.

The sites are primarily habitation sites that contain one or more brush shelters or simple forked-stick hogans. Located to the northeast of Aztec, New Mexico, these sites occupy sandy colluvial slopes slightly above the present-day ecotone between the Pinyon-Juniper Woodland and the sage-covered benches east of the Animas River. The location of several of the sites, buried under one meter or more of alluvium, initially suggested the possibility of an early Navajo occupation. This interpretation was supported further by the lack of Gobernador Polychrome, a purported hallmark of the

later Gobernador Phase, on several of the sites (see Table 4.1).

TABLE 4.1 Descriptive Data for Navajo Sites  
Discussed in Text.

| <i>Site<br/>Number</i> | <i>Description</i>                                                      | <i>Gobernador<br/>Polychrome?</i> |
|------------------------|-------------------------------------------------------------------------|-----------------------------------|
| LA 79097               | Navajo habitation with at least one structure and outdoor work area     | Yes                               |
| LA 80315               | Navajo habitation with one structure                                    | No                                |
| LA 80316               | Possible Navajo habitation with storage and processing features         | No                                |
| LA 80318               | Navajo habitation with two structures                                   | No                                |
| LA 80319               | Navajo habitation with three structures and outdoor activity areas      | No                                |
| LA 80910               | Navajo habitation with at least one structure and outdoor activity area | No                                |
| LA 80911               | Navajo habitation with one structure                                    | No                                |
| LA 81169               | Possible Navajo habitation with one storage feature                     | No                                |
| LA 81172               | Possible Navajo habitation with storage and processing features         | No                                |
| LA 81175               | Navajo habitation with two structures and an outdoor activity area      | Yes                               |

### Chronometric Data Set

#### *Radiocarbon Dates from Arkansas Loop Project Sites*

In order to establish temporal control for these ten sites, seventy-three radiocarbon samples obtained from secure Navajo contexts were submitted to Beta



Analytic, Inc., for radiocarbon assays. The samples were composed of charcoal or charcoal-enriched soil from structures or features; individual sample numbers and proveniences are detailed in the Arkansas Loop excavation report (Honeycutt and Fetterman 1994). Unfortunately, the poor preservation of the features and structures generally did not allow for selection of high-quality charcoal for dating. Most samples were composed of the entire charcoal contents of the provenience; thus, few samples can be refined using only the outer rings of samples for dating.

These samples yielded unusually early dates, much earlier than anticipated. The dates average 637 radiocarbon years BP, with a maximum of

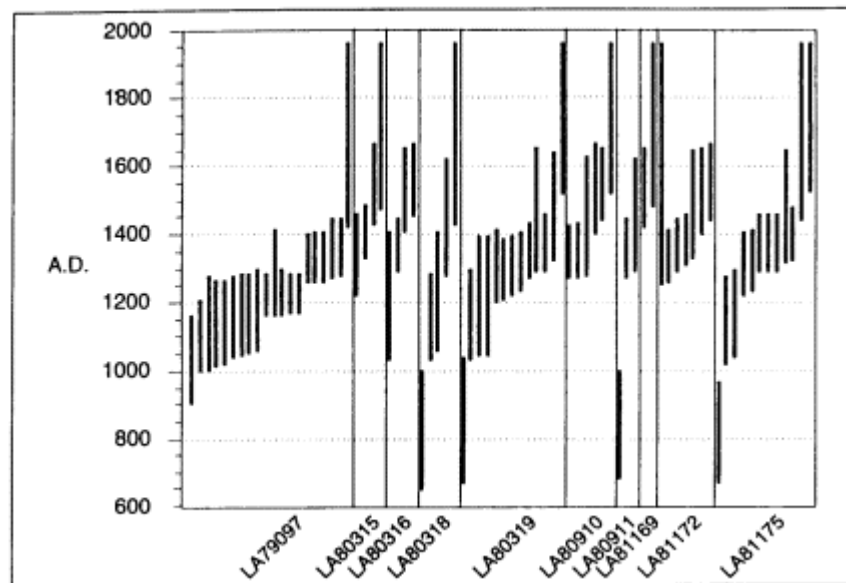


Figure 4.2.

Radiocarbon dates from Arkansas Loop Project sites.

1220 and a minimum of 220 years BP. The average standard deviation is sixty-seven years. As can be seen in Figure 4.2., the vast majority of the two-sigma calibrated date ranges predate A.D. 1500, a time most researchers currently accept as the initial date of Dinétah phase. Although it was expected that some evidence of old-wood use would be present in the sample, the consistently early nature of these radiocarbon dates suggested, at least initially, that the early dates might reflect the true age of the sites.

Another method of evaluating radiocarbon dates is the "strong-case" approach (Schiffer 1986). These samples are all from structural elements and should provide better chronological control of the data. As can be seen in Figure 4.3, however, these strong-case dates are not significantly different from the entire corpus of dates. At least for early Navajo sites, these data suggest that the "strong-case" approach is of little utility.

In addition to sampling for radiocarbon dating, pieces of charcoal or beams were submitted to the Laboratory of Tree-Ring Research for dendrochronological analysis whenever possible. Unfortunately, as a result of erratic tree-ring growth in the area and the small size of many of the samples collected, very few of the samples dated. The few tree-ring dates available, however, do provide an important means of testing the validity of the radiocarbon dates.

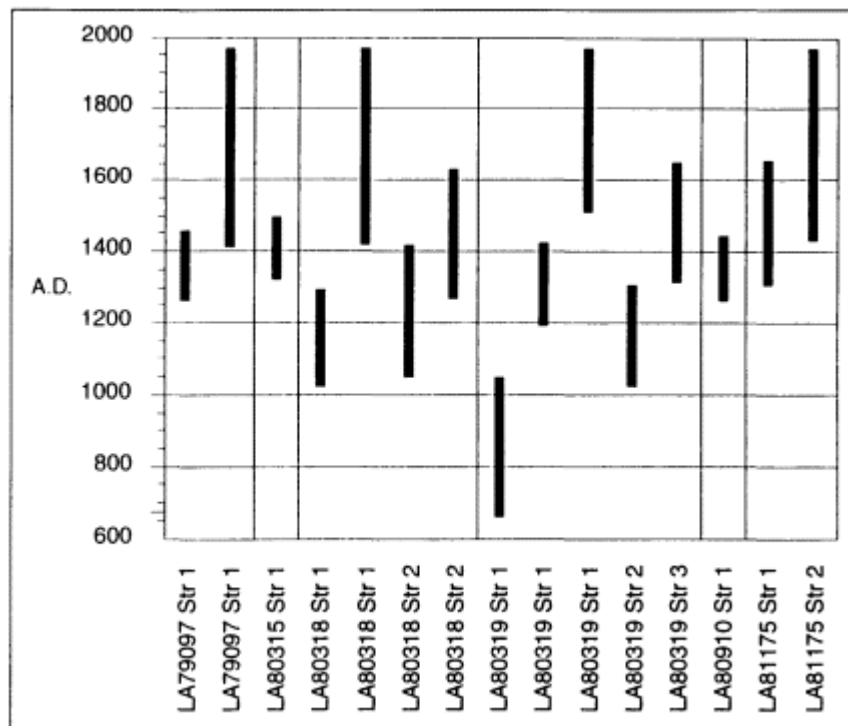


Figure 4.3.

“Strong-case” dates from Arkansas Loop Project sites.

### *LA 81172: Evaluating Radiocarbon and Tree-Ring Dates*

Site LA 81172 (see Figure 4.1) is a possible habitation site that contained surface features, flaked stone artifacts, and Dinétah Gray, and Pueblo IV tradeware ceramics. Of particular interest to this discussion is Feature 11, a large bell-shaped cist that was apparently used as a corn roasting pit. At the base of the pit was a 10-cm-thick deposit of charcoal beams, presumably preserved by the smothering of the fire. Eleven of the beams produced tree-ring dates. In addition, a single radiocarbon date was obtained on charcoal from the same feature (Figure 4.4).

The twelve independent dates, all derived from biological materials in the same feature, can be

interpreted in several ways. It is possible, though highly improbable, that each group of dates represents a use episode and that the feature was used sporadically over a period of more than 300 years. If the dates are interpreted using the principles set forth by Dean (1978) and Ahlstrom (1985), however, a very different picture of the use of Feature 11 emerges. Because there are no cutting-date clus-

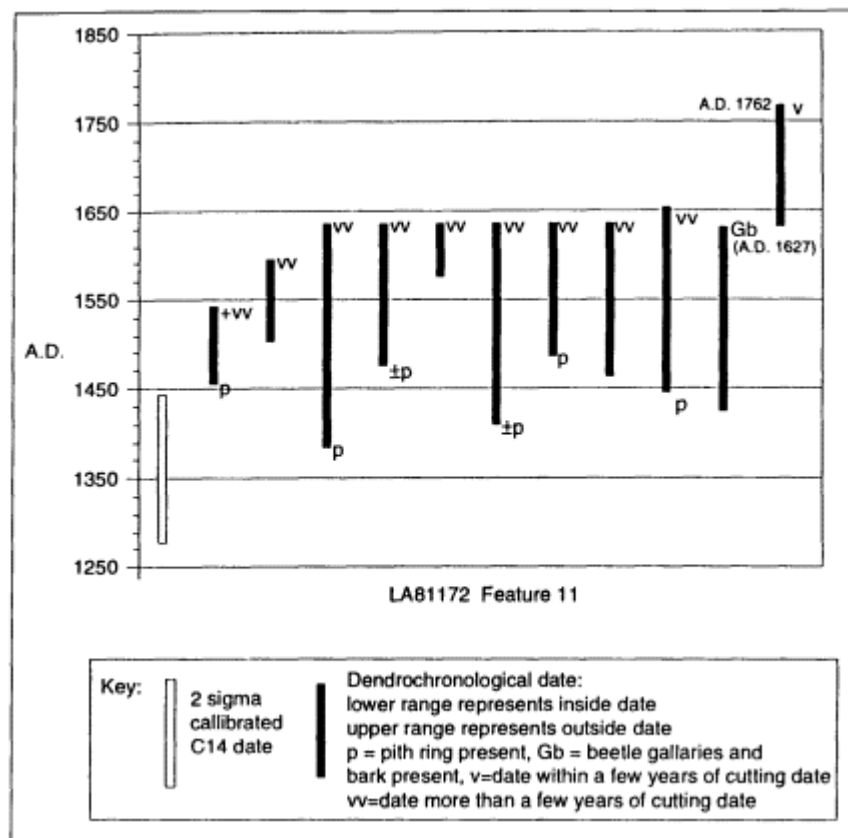


Figure 4.4.  
Dates from Feature 11, LA 81172.

ters, the latest date from the feature should give an approximate occupation date (Ahlstrom 1985). Thus, a single tree-ring date indicates the feature was in use sometime after A.D. 1762 (LTRR sample # MMN-9, 1634-1762v).

Archaeological evidence suggests that the biological materials dated were deposited in the feature during one episode of use. The disparity between the A.D. 1762 date and the A.D. 1600s dates suggests that both live wood (represented by the A.D. 1762 sample) and dead wood (represented by the A.D. 1600s samples) were used as fuelwood for the feature.

Wood used for firing the feature included pinyon logs

that still contained evidence of bark (LTRR# MMN-12, 1428-1627GB). In many situations, this “cutting” date would be used to date a cultural event. It is apparent from the distribution of tree-ring dates, however, that this sample had been dead for at least 135 years prior to the use of the feature.

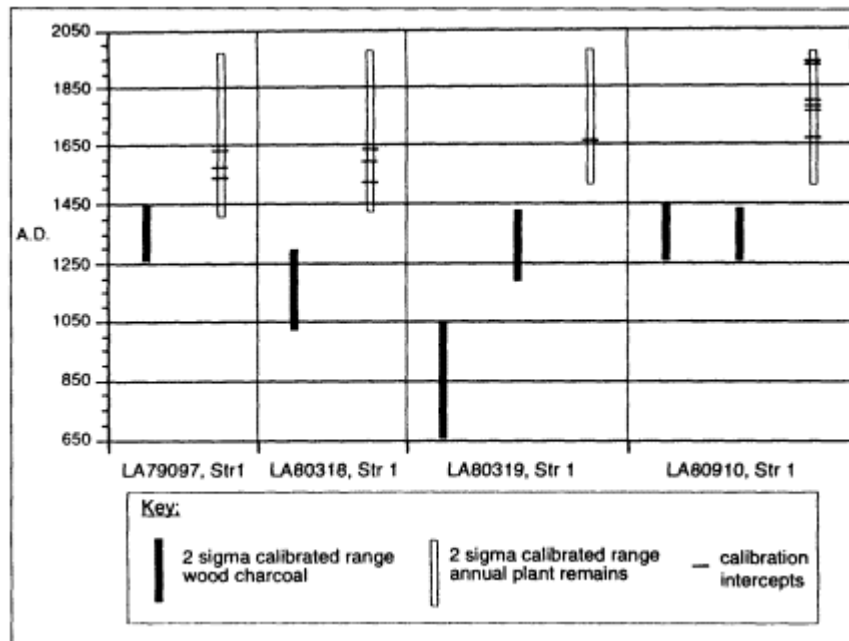


Figure 4.5.

Calibrated dates from annual plants and wood samples.

These data clearly demonstrate the importance of processing multiple samples. Had the latest sample not been processed, the 1627 cutting date could easily have been used to infer the occupation date.

The charcoal sample (Beta #50855: calibrated A.D. 1290-1440) produced a radiocarbon date even earlier than the “noncutting” tree-ring dates, and the two-sigma calibrated range only slightly overlaps the earliest inside date from the dendrochronological samples. In addition, the inside dates for two of the logs were more than 300 years earlier than date of use of the feature. Thus, it is clear that dead-wood use and the cross-section effect can seriously skew chronological data from early Navajo sites.

In addition to temporal information, these data can provide important information on the site environment.



The presence of a pinyon pine that had been dead for almost 135 years yet still retained bark suggests the environment in the vicinity of the project is relatively benign in relation to decomposition of vegetal material.

*Radiocarbon Dating Annual Plants*

Four sites, LA 79097, LA 80318, LA 80319, and LA 80910, were used as additional tests for the use of old wood; samples of annual plants includ-

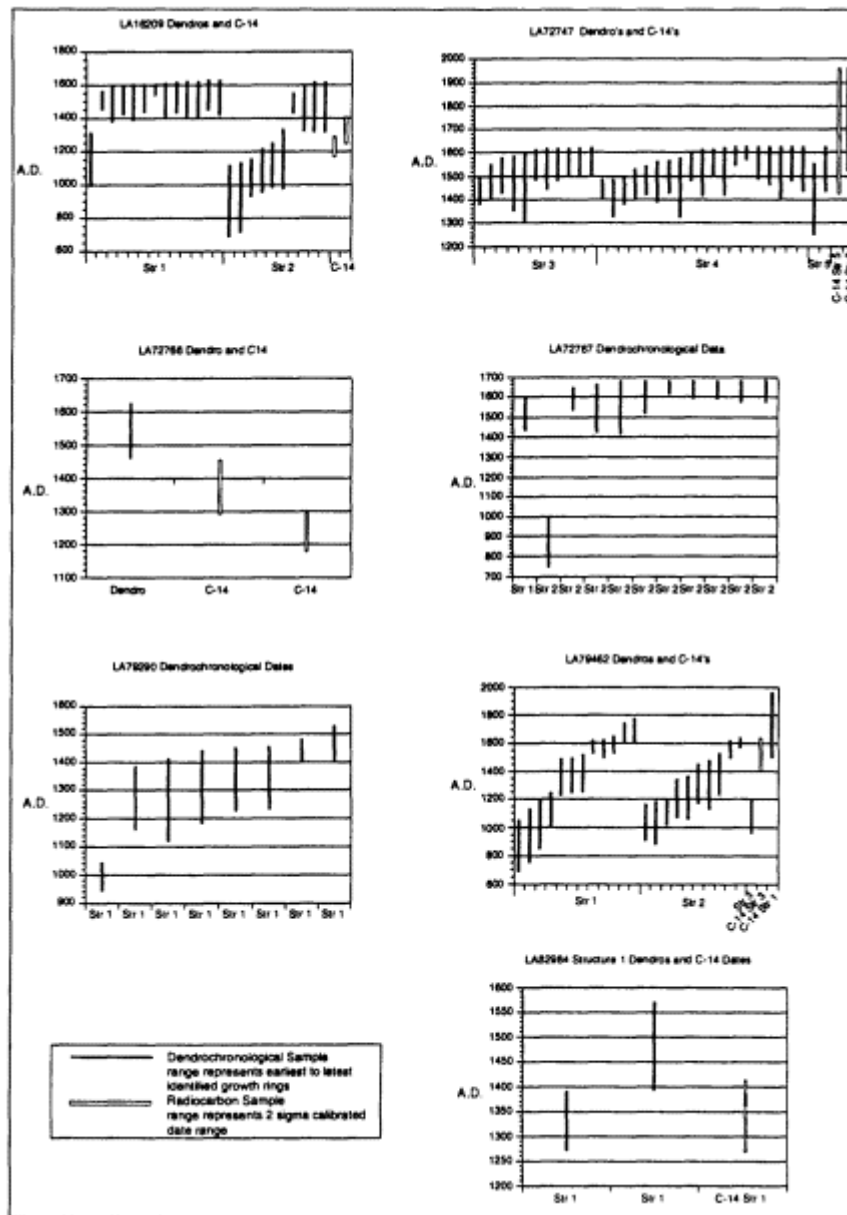


Figure 4.6.

Data from LPAC sites discussed in the text.

ing juniper berries, *Chenopodium* seeds, and corn kernels were submitted for radiocarbon assays. There was a sufficient number of juniper berries to process a standard sample from LA 80318, but the other samples re-

quired accelerator dating because of their small sizes. Given the annual nature of the dated materials, these dates (LA 79097 - Cal. A.D. 1420-1955 [AA10763]; LA 80318 - Cal. A.D. 1430-1955 [Beta 50854]; LA 80319 - Cal. A.D. 1520-1955 [AA10765]; and LA 80910 - Cal. A.D. 1520-1955 [AA10762]) should more accurately reflect the true age of the site occupation (Creel and Long 1986).

Figure 4.5 illustrates the calibrated date ranges for both the annual plant remains and charcoal samples. As can be seen, the charcoal samples from the structural elements predate the annual plant remains by zoo to 400 years. Thus, the dating of different materials from the sites indicates a significant problem with old-wood use and cross-section effect on the Navajo sites in the Aztec area.

This problem appears to be endemic in the Navajo archaeological record; Figure 4.6 illustrates dendrochronological and radiocarbon dates from seven Navajo sites recently excavated in the area by La Plata Archaeological Consultants (LPAC) (Steve Fuller, personal communication). The use of old wood and the cross-section effect can be seen in all the sites where more than one log was tree-ring dated. At every site with both radiocarbon and tree-ring dates, the radiocarbon dates overestimate the true age of the site, sometimes by as much as 400 years. The only exceptions to this trend are those radiocarbon dates with two-sigma ranges that extend into the twentieth century.

#### *Dinétah Phase Tree-Ring Data*

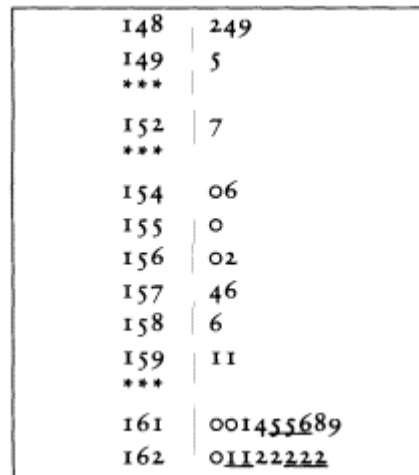


Figure 4.7.  
Stem-and-leaf plot for tree-ring dates  
from site LA 72747.

The tree-ring data from LPAC's excavations provide firm data supporting a Navajo occupation in the area prior to the Pueblo Revolt. Specifically, the tree-ring data from site LA 72747 suggest that the structures on this site were built and occupied in the period A.D. 1615-1622.

Site LA 72747 is a multioccupation Basketmaker II-Navajo habitation site (Hovezak et al. 1993). The Navajo occupation is represented by the remains of three burned forked-stick hogans and associated scatter of flaked stone,

ground stone, and ceramic items. Ceramics in direct association with structure floors consist of Dinétah Gray jars and sherds.

Table 4.2 shows cutting or near-cutting dates for the three structures; Figure 4.7 presents all the tree-ring dates from the site using the stem-and-leaf technique suggested by Ahlstrom (1985). As can be seen, the dates indicate construction of Structure 3 in or slightly after A.D. 1615, Structure 4 in A.D. 1622, and Structure 5 in or after A.D. 1621. The site as a whole demonstrates a strong terminal cluster of cutting dates in A.D. 1622. The consistency of these dates could be interpreted as indicating that all three structures were occupied contemporaneously in A.D. 1621-1622.

TABLE 4.2 Summary of Tree-Ring Dates from LA 727472

| <i>Provenience</i> | <i>Sample</i> | <i>Species</i> | <i>Inner</i> | <i>Symbol</i> | <i>Outer</i> | <i>Symbol</i> |
|--------------------|---------------|----------------|--------------|---------------|--------------|---------------|
|                    | <i>Number</i> |                | <i>Date</i>  |               | <i>Date</i>  |               |
| Structure 3        | LPM-76        | PNN            | 1384         | p             | 1495         | +vv           |
|                    | LPM-69        | PNN            | 1403         |               | 1546         | ++vv          |
|                    | LPM-71        | PNN            | 1430         | p             | 1576         | +v            |
|                    | LPM-75        | JUN            | 1358         | +/-           | 1586         | vv            |
|                    | LPM-67        | JUN            | 1313         | +/-           | 1591         | vv            |
|                    | LPM-80        | JUN            | 1487         | +/-           | 1610         | vv            |
|                    | LPM-73        | JUN            | 1447         | p             | 1614         | +r            |
|                    | LPM-70        | JUN            | 1483         | p             | 1615         | r             |
|                    | LPM-74        | JUN            | 1510         | p             | 1615         | r             |
|                    | LPM-77        | JUN            | 1511         |               | 1618         | vv            |
|                    | LPM-78        | JUN            | 1502         | +/-           | 1619         | v             |
| Structure 4        | LPM-91        | JUN            | 1403         |               | 1482         | +vv           |
|                    | LPM-107       | JUN            | 1329         | +/-           | 1484         | vv            |
|                    | LPM-92        | JUN            | 1384         |               | 1489         | vv            |
|                    | LPM-100       | JUN            | 1413         |               | 1527         | vv            |
|                    | LPM-105       | JUN            | 1424         | +/-           | 1540         | vv            |
|                    | LPM-103       | JUN            | 1394         | +/-           | 1560         | vv            |

|         |     |      |      |      |    |
|---------|-----|------|------|------|----|
| LPM-94  | JUN | 1430 |      | 1562 | vv |
| LPM-108 | JUN | 1331 | +/-  | 1574 | vv |
| LPM-82  | JUN | 1485 |      | 1591 | vv |
| LPM-99  | JUN | 1419 | +/-  | 1610 | vv |
| LPM-83  | JUN | 1509 |      | 1611 | vv |
| LPM-101 | JUN | 1425 | +/-p | 1616 | r  |
| LPM-97  | JUN | 1550 | +/-p | 1620 | vv |
| LPM-85  | JUN | 1573 | +/-p | 1621 | r  |
| LPM-89  | JUN | 1490 | +/-p | 1622 | +v |

| <i>Provenience</i> | <i>Sample</i> | <i>Species</i> | <i>Inner</i> | <i>Symbol</i> | <i>Outer</i> | <i>Symbol</i> |
|--------------------|---------------|----------------|--------------|---------------|--------------|---------------|
|                    | <i>Number</i> |                | <i>Date</i>  |               | <i>Date</i>  |               |
|                    | LPM-90        | JUN            | 1466         |               | 1622         | r             |
|                    | LPM-81        | JUN            | 1411         | +/-           | 1622         | +rB           |
|                    | LPM-104       | JUN            | 1482         |               | 1622         | vv            |
|                    | LPM-102       | JUN            | 1438         | +/-           | 1622         | r             |
| Structure          | LPM-66        | JUN            | 1253         | +/-           | 1550         | ++vv          |
| 5                  | LPM-64        | JUN            | 1441         | p             | 1621         | rB            |

See appendix for symbol legend.

## Conclusions

Analysis of radiocarbon and dendrochronological data from the Aztec area indicates that there is a significant problem with using radiocarbon dates from wood charcoal to assess the age of early Navajo sites in northwest New Mexico. Because it is the use of such materials that has been the basis for extending the entrance of the Navajo into northwestern New Mexico back to the fourteenth and fifteenth centuries A.D., I believe such interpretations are premature. Given the problems with radiocarbon dating of wood charcoal from protohistoric sites of this time period, I also believe researchers should abandon radiocarbon dating of wood elements from these sites and concentrate on radiocarbon dating annual plants and dating using other methods. The analyses above indicate that researchers must be very careful about interpreting radiocarbon or noncutting tree-ring dates; both methods may not date the target event and, therefore, may seriously overestimate the true age of a site. It is clear, however, that the Navajo were living in the area in the early seventeenth century, and models of Navajo entry into the

area after the Pueblo Revolt must be revised to incorporate these new data.

*Acknowledgments.* Funding for the processing of the radiocarbon and dendrochronological samples was provided by Northwest Pipeline Corporation, Meridian Oil Company, El Paso Natural Gas Company, and Williams Field Services Corporation. I wish to thank Steve Fuller, Tim Hovesak, and Leslie Sesler of La Plata Archaeological Consultants, Inc., for their ideas, data, and comments. In addition, I wish to thank Ron Towner for his diligent work arranging the symposium, editing the manuscripts, and all the work it took to follow it through to publication.



5

Reexamining Gobernador Polychrome  
Toward a New Understanding of the Early  
Navajo Chronological Sequence in  
Northwestern New Mexico

Paul F. Reed

Lori Stephens Reed

Introduction

Recent work on the nature of the Navajo occupation of the Upper San Juan River area has dramatically changed the way archaeologists describe this period. Although no consensus has been reached, many researchers working in the area now agree that the Navajo and other Athapaskans were present by at least A.D. 500 and perhaps earlier. This is in contrast to the long-held view that the Navajo were latecomers to the Southwest, perhaps arriving just before or after the Pueblo Revolt and Spanish Reconquest (A.D. 1680-1696). Hand-in-hand with this hypothesis of a late arrival for the Navajo is the notion that Navajo culture was dramatically and irrevocably changed as a result of contact with Puebloan groups in the late 1600s and early 1700s. Among the more dramatic changes in Navajo culture that have been documented during this period are the manufacture of pottery and the use of stone masonry to construct dwellings. Recent analyses, however, have challenged the idea that Navajo culture witnessed extensive, rapid change during this period.

For example, evidence suggests that the Navajo brought a ceramic technology with them to the Southwest (Brugge 1981b; Marshall 1985), and, al-

though the Navajo did make use of stone in building the pueblitos, they continued to use wood primarily for the construction of hogans.

Because most early researchers argued that the Navajo learned ceramic production from Puebloans, they assumed that all the polychrome ceramics frequently found on Navajo sites were made by Puebloans. In fact, a number of ceramics were imported from Puebloan areas including the Rio Grande, Jemez, Zuni, Acoma, and Hopi. The type that came to be known as Gobernador Polychrome, however, presented a problem because it did not match any known Puebloan type; rather, it appeared to be a combination of several types. Because the appearance of Gobernador Polychrome apparently coincided with the construction of pueblitos, presumably built by Pueblo refugees fleeing the aftermath of the Pueblo Revolt and several episodes of Spanish Reconquest (A.D. 1680-1696), and because Gobernador Polychrome was manufactured out of local raw materials, it was assumed that Pueblo refugees made it (e.g., Hester 1962a; Kidder 1920).

This hypothesis has essentially persisted until the present time among most archaeologists working in the area, although a few dissenting voices have been heard (e.g., Hogan et al. 1991; Marshall 1985; L. S. Reed and Reed 1992b; Winter and Hogan 1992). In this paper, we undertake a review of the origin of Gobernador Polychrome via several avenues of inquiry: (1) a review of existing data on Gobernador Polychrome; (2) a summary of recently excavated Navajo sites with and without Gobernador Polychrome; and (3) an

examination of sites with evidence of on-site production of Gobernador Polychrome. Our intent is to demonstrate that Gobernador Polychrome was largely a Navajo development and was being produced by the Navajo at least as early as A.D. 1650. In addition, our data indicate that not all Gobernador phase Navajo sites contain Gobernador Polychrome; there are sites that postdate A.D. 1700 that lack Gobernador Polychrome ceramics. Thus, if our data and inferences concerning the dating of sites with and without Gobernador Polychrome are accurate, there are important implications for the Gobernador phase, which is partially defined on the presence of Gobernador Polychrome (Carlson 1965; Eddy 1966; Hester 1962a).

### Culture History

At the present time, discussion of early Navajo remains in the Upper San Juan area is hampered by the lack of a current model for Athapascan entry into the Southwest.\* Although several distinct models regarding the

\* Much of the culture history section presented here is taken directly from L. S. Reed and Reed (1992b:91-94).

timing and route of the Athapascan migration have been proposed (e.g., Gunnerson 1956; Perry 1980; D. R. Wilcox 1981; see also Schaafsma, Brugge, this volume), all of these models predate the archaeological work of the last fifteen years in the Dinétah area. Given the early dates derived from recent excavations in the area (Brown et al. 1992; Hancock et al. 1988; Hogan and Munford 1988; Marshall 1985; A. C. Reed et al. 1988; Reynolds et al. 1984), it is clear that models placing the Navajo in the Southwest after the time of Spanish contact (i.e., A.D. 1540) (Gunnerson and Gunnerson 1971; Hester 1962a; C. F. Schaafsma 1976, 1979; Schroeder 1974) must be revised. In particular, we disagree with Schaafsma's contention (1976, 1979, this volume) that the Navajo did not enter the San Juan drainage until after the Pueblo Revolt of 1680. In our view, such a model appears untenable in light of recent contrary evidence.

### *Dinétah Phase*

The earliest period of Navajo occupation in the Upper San Juan drainage area is termed the Dinétah phase. The Dinétah phase was defined by Dittert (1958a) and Dittert et al. (1961) and expanded upon by Hester (1962a) as the period during which the Navajo settled in the Southwest. Although extensive work in the Navajo Reservoir District (Dinétah area) was conducted during the 1950s and 1960s, no concrete evidence of Navajo occupation prior to A.D. 1700 was uncovered (Eddy 1966). Thus, Eddy chose not to use the Dinétah phase concept, instead identifying the period from A.D. 1550 to 1700 as "Indeterminate Navajo" (1966).

Identifying the time frame during which the Navajo entered the traditional Dinétah area has been problematical. Some researchers argue that they were in the Southwest by approximately A.D. 1500 (Bailey and Bailey 1978; Brugge 1984; Hester 1962a), but others maintain that they arrived at the same time the Spanish entered New Mexico in A.D. 1540 or even later (Gunnerson and Gunnerson 1971; C. F. Schaafsma 1976, 1979, 1981; Schroeder 1974; D. R. Wilcox 1981). Evidence that supports an early entry for the Navajo into the Southwest, as well as supporting the proposed Dinétah phase, has been accumulating over the last decade. These data indicate that the Navajo were in northwestern New Mexico by A.D. 1500 and perhaps in the late A.D. 1400s (Brown and Hancock 1992; Hancock et al. 1988; Hogan and Munford 1988; Marshall 1985; A. C. Reed et al. 1988; A. D. Reed and Horn 1988a, 1990; Reynolds et al. 1984; Winter and Hogan 1992), although this latter date has been questioned (Brown 1990; Brown and Hancock 1992). At the present time, the Dinétah phase is suggested to date from ca. A.D. 1500 to A.D. 1700.

However, recent excavations at LA 80986 by Western Cultural Resource Management (WCRM) have identified an early Navajo occupation with Dinétah Gray ceramics dating as early as A.D. 1413. A radiocarbon sample consisting of juniper seeds produced a date of  $430 \pm 50$  BP (uncalibrated) with a two-sigma, calibrated range of A.D. 1413-1632 (Beta 74734) and provides evidence for what may be the earliest, well-dated Dinétah phase occupation in northwestern New Mexico (Latady and Goff 1994).

Dinétah phase sites are characterized by brush structures, forked-pole hogans, or both, light ceramic and lithic artifact scatters, and hearths (Brown and Hancock 1992). Dinétah phase structures often contain east- or southeast-facing doorways and frequently have associated ash piles to the east or southeast. The Navajo of the Dinétah phase are assumed to have been nonagricultural hunter-gatherers who lived in mobile bands and used highland and lowland areas of northwestern New Mexico on a seasonal basis (Hester 1962a). Contact with other groups, such as the Eastern and Western Pueblos, is suggested to have begun during the early Dinétah phase and continued on a limited basis into the Gobernador phase (Dittert 1958b; Hester and Shiner 1963; L. S. Reed and Reed 1992b).

Navajo/Pueblo interaction and exchange in the early Dinétah phase has been demonstrated by the presence of Jemez Black-on-white and Jeddito Yellowware ceramics on several dated sites (Hester and Shiner 1963; Mills 1989). Other materials such as Pedernal Chert from the Jemez-Abiquiu District, obsidian from

the Jemez Mountains and the Flagstaff, Arizona, area, and copper pigments from the Ojo Caliente District have been recovered from Dinétah phase sites (Hancock and Moore 1988; Hester and Shiner 1963; Kearns 1988b). These raw materials were undoubtedly obtained through trade networks or by means of procurement expeditions.

### *Gobernador Phase*

The Gobernador phase (A.D. 1700-1775) is defined as a period of extensive Puebloan influence manifested by the influx of Puebloan refugees fleeing the Spanish Reconquest, the presence of high numbers of northern Rio Grande and Hopi ceramics, the manufacture of Gobernador Polychrome ceramics (which resemble Puebloan ceramic styles), the construction of defensive structures or “pueblitos” (which resemble Puebloan architecture), and the appearance of Puebloan-style masked dancers and kachina-like figures in Navajo rock art (Carlson 1965; Eddy 1966; Hester 1962a;



Powers and Johnson 1987). This evidence of Puebloan influence is augmented by historical documentation of increased Navajo/Pueblo political interaction and trade networks and by the presence of Puebloan groups among the Navajo following the Pueblo Revolt of 1680 (Forbes 1960; Hammond and Rey 1966; L. S. Reed and Reed 1992b; Spicer 1962).

Gobernador phase habitation sites exhibit a wide range of variability in habitation types. Dwellings may include any combination of forked-stick hogans, masonry-walled pueblitos, lean-tos, and ramadas. The range of site complexity for habitations is difficult to specify, but pueblito sites range from one to thirty-five rooms and may have as many as eight associated hogans (Carlson 1965; Powers and Johnson 1987). A great variety of traded ceramics is found on habitation sites, as well as on associated limited-activity, nonhabitation sites. These ceramics include Rio Grande Glazeware, Rio Grande Biscuitware, Jemez Black-on-white, Tewa Polychromes, and Eastern Keres, Zuni, and Hopi wares. Obsidian from the Abiquiu and Jemez areas is also present.

Evidence of imported ceramics and lithic raw materials is more abundant during the Gobernador phase than during the Dinétah phase and has been attributed to both exchange (L. S. Reed and Reed 1992b) and to the presence of Pueblo refugees at Navajo pueblito sites (Brugge 1963; Hester 1962a). Gobernador phase sites contain ceramics produced by both Eastern and Western Pueblo groups. As Hogan et al. (1991) and Marshall (1985) indicate, however, there are no archaeological

data other than the presence of tradeware ceramics and Puebloanlike architecture that demonstrate the pueblito sites were built or occupied by Pueblo refugees. The only data that support this inference are from historical Spanish documents (e.g., Hammond and Rey 1966; see also Hogan 1991).

Spanish documents indicate that during the time of the Spanish Reconquest (A.D. 1692-1696), Puebloan populations were leaving many areas of the northern Rio Grande region and moving north or west to escape Spanish reprisals. It has been documented that most of the Tano groups, most of the Tewas from Santa Clara, some of the Tewas from San Ildefonso and Pojoaque, and some of the Jemez fled the northern Rio Grande during the Revolt and subsequent Reconquest. Many of these refugees went to the Hopi, Zuni, or Acoma regions and a smaller group of refugees reportedly went to live with the Navajo (Dozier 1966; Forbes 1960; Hammond and Rey 1966; Hogan 1991; Spicer 1962).

Based upon the assumed presence of Pueblo refugees at Navajo sites, Bailey and Bailey (1986:15) have suggested that the Navajo became “biological and cultural hybrids.” In order for this to have happened, however, a substantial number of Pueblo refugees would have had to flee to

the Navajo area and merge with the Navajo population. There is, however, neither archaeological nor historical evidence to suggest that great numbers of Pueblo refugees went to the Navajo area or remained permanently with the Navajo. Thus, as suggested by Hogan (1991) and Towner (this volume), this assumption of significant biological and cultural mixing is probably unrealistic.

Currently, the entire concept of the Gobernador phase is undergoing revision. In addition to Hogan's reassessment (1991; Hogan et al. 1991) of the ethnohistoric data relating to the phase, other studies suggest problems with its current definition and extent. Towner's work (1992, this volume) on the dendrochronology of the area suggests that the majority of pueblito sites were not constructed until the 1720s, over thirty years after the main exodus of Puebloan people from the Rio Grande area is assumed to have occurred. Thus, it is probably a misnomer to describe these sites as a "refugee" phenomenon. In addition, a study of pueblito location and visibility (Jacobson et al. 1992) suggests that the pueblito system was largely a defensive response to Ute raiding that is ethnohistorically documented to have increased in scale and intensity after 1720 (Reeve 1958; Schroeder 1963; see also Towner, this volume). The suggestion that the construction of the pueblitos was a response to Ute pressure is not new, however; Carlson (1965) initially made this suggestion while reporting on Morris's work in the 1920s.

In an earlier paper (L. S. Reed and Reed 1992b), we

initially suggested that good evidence exists demonstrating that the manufacture of Gobernador Polychrome began as early as the 1630s in some areas, over sixty years prior to the purported beginning of the Gobernador phase. In sum, these new studies suggest that the Gobernador phase needs revision, at the least, and perhaps should be divided into early (A.D. 1630-1720) and late (A.D. 1721-1775) subphases (see Brown, this volume).

### Gobernador Polychrome in Historical Context

The first reference to the ceramic type that would come to be known as Gobernador Polychrome is an article by Kidder (1920). Kidder visited several pueblito sites in Gobernador and Largo canyons and identified, among other types, a thin, three-color painted ware whose description corresponds to Gobernador Polychrome:

This pottery ... is extremely hard and was evidently very highly fired; most pieces are dark gray in cross section. The color of the low walls ... is a warm yellow to orange. The lower sides and bottom, both

within and without, are carelessly smeared over with a thin red wash, through which the yellow base color often appears. The upper sides, interior and exterior, [have] single line decoration in red ... a few designs in black alone. (1920:326)

There is no doubt that this material is Gobernador Polychrome. Kidder concluded, on the basis of his brief work and Bandelier's *Final Report* (1890-1892), that the Jemez people had occupied these sites and, by extension, had made the pottery. Clearly, some of the pottery Kidder looked at was made by Jemez potters particularly a "two-color black/white thick pottery" (probably Jemez Black-on-white). Some of the pottery was probably Biscuitware from the upper Rio Grande and some Tewa Polychrome may also have been present. Kidder apparently never even considered the possibility that Navajos had built the ruins, although he did concede that the presence of "hogan-like structures probably indicates contact with Navajos or some other people who made circular, earth-covered lodges of wood" (Kidder 1920:327). This view, that the pueblitos were built and occupied predominantly by Pueblo refugees, would largely endure until the present and, indeed, is still maintained by many Southwestern archaeologists (see Hogan 1991). There is good evidence, however, to suggest that the pueblitos and their accompanying characteristics are largely Navajo in derivation, albeit with considerable Puebloan influence (Hogan 1991; L. S. Reed and Reed 1992b; Towner, this volume). Kidder later identified a Gobernador Polychrome jar at Pecos Pueblo and further concluded, with regard to its origin, that "the pottery

was apparently made by Pueblo refugees who settled in northern New Mexico after the revolt of 1680, and who seem to have lived there for a relatively brief period” (Kidder and Shepard 1936:373).

Keur (1941, 1944) conducted research both in the Largo-Gobernador area and at Big Bead Mesa south of Dinétah. She excavated several pueblitos and associated hogans, all of which dated to the Gobernador phase. In examining Gobernador Polychrome, Keur suggested that the ware was

presumably Navajo-made but Pueblo inspired. Judging from the large quantity of potsherds, the variety of wares, and their generally excellent quality, this was a period of ceramic florescence for the Navajos, who were possibly inspired, no doubt, by their settled and versatile Pueblo neighbors. (1941:85)

Carlson (1965) reported on Morris’s earlier work in the Gobernador area, which focused on several pueblitos and included a study of Gobernador Polychrome. In addition to providing detailed descriptions of

shape, design, and a variety of technological aspects of the pottery, Carlson also noted that

most examples [of Gobernador Polychrome] show groups of shallow, narrow, parallel striations on the surface. These could have been caused by wiping the unfinished surface with a corn cob... . They are quite different from marks made by stone polishing. (1965:52)

Because Navajo potters (historically and prehistorically) routinely finish their plain ware vessels by scraping them with corncobs (Brugge 1963), Carlson's description of the finish on Gobernador Polychrome suggests that, at least on the sites Carlson examined, it was a Navajo product. Decorated Puebloan vessels of the same and earlier periods were usually finished with a polishing stone.

Another point Carlson makes is that Gobernador Polychrome is generally poorly slipped; only one vessel in the collection he examined had a consistent slip across an entire vessel field. Puebloan-produced pottery of the same period, however, tends to be more thoroughly slipped. In looking at the rim profiles depicted in Carlson's Figure 12 (1965), it seems clear that the vessel rims most closely resemble those of Glazes D and E in Mera's (1933) typology. Interestingly, the period of production for Glazes D and E is thought to have been A.D. 1490-1630 (Mera 1940).

Carlson concludes that although Gobernador Polychrome is known to occur from Pecos Pueblo on the east to Nazlini, Arizona, on the west, its main area of occurrence is the Gobernador District. He sums up the ceramic type by saying:

In theory, Gobernador Polychrome during its initial development was made by Rio Grande Pueblo refugee women. The techniques could easily have been learned from them by Navajo women. I suspect that Navajo plain ware stems from the same source, but at a slightly earlier period. (1965:57)

This conclusion is a possible scenario; however, once one or several Pueblo refugee women instructed the Navajo on the production of polychrome ceramic vessels, then Gobernador Polychrome can no longer be considered a Pueblo refugee product. Rather, Gobernador Polychrome became a creative medium for the Navajo and a reflection of their cultural identity. As a result, further study of this polychrome type must be approached from the position of its specific relevance to Navajo culture and not from the perspective of refugee ceramic production.

Other researchers (Farmer 1942; Haskell 1975) working in the area have provided some discussion of Gobernador Polychrome, but none are



significantly different from those provided by Kidder and Carlson which form the type description. Work during the Navajo Reservoir Project in the 1950s and 1960s, however, further refined the description and distribution of Gobernador Polychrome.

The Navajo Reservoir Project was undertaken to salvage information from more than 500 sites in areas to be flooded during creation of Navajo Lake (Eddy 1966). A number of research topics were addressed including a discussion of Navajo sites and settlement patterns (Dittert and Shiner n.d.; Hester 1962a; Hester and Shiner 1963). The study of Gobernador Polychrome was not a central focus of the project, but data concerning the type were accumulated. For example, Dittert et al. (1961:245) concluded, based on work in the Reservoir, that the only pre-Revolt Navajo pottery is Dinétah Gray. They suggest that the Navajo began making Gobernador Polychrome after contact with the Puebloans. They also postulate, conversely, that the Puebloan refugees made Gobernador Polychrome and the Navajo later made Gobernador-Navajo Polychrome as an imitation. Gobernador Polychrome's closest affinities, according to Dittert et al. (1961), are with Tewa and Hopi yellowwares. They also indicate that

the ethnic components of the Gobernador phase are Navajo with additions of Pueblo Indian, predominantly Jemez. These peoples have lived side by side in an acculturation situation. The culture during this phase has become a blend resulting from cultural interchange, and therefore, it is difficult or impossible to establish the

presence of pure Navajo or pure Puebloan sites.  
(1961:246)

Hester, in discussing the Gobernador phase, Gobernador Polychrome, Navajo Polychrome, and later types, noted

these painted wares span the refugee period following the Pueblo Revolt and probably represent wares first made by the Pueblo Refugees [i.e., Gobernador Polychrome] and later [the other wares] by Navajo and Navajo-assimilated Pueblos. The end of the Dinétah phase is marked by the appearance of Gobernador Polychrome and pueblitos. (1962a:49)

In his summary volume on the Navajo Reservoir Project, Eddy (1966:404) drew a number of conclusions that are relevant to this discussion. First, he concluded that only three ceramic types were produced by the Navajo: Dinétah Utility, Gobernador Indented, and Frances Polychrome. (Dinétah Utility is presently considered a variant of Dinétah Gray. Similarly, Frances Polychrome is now thought to be a variant of

Gobernador Polychrome. Gobernador Indented is a closely related variation of Dinétah Gray [C. D. Wilson and Blinman 1993]). Eddy (1966) notes that the origin of Gobernador Polychrome is unknown but is thought to have been made by Pueblo refugees. In the ceramic chronology defined during the project, Ceramic Group B is assigned to the Gobernador phase (A.D. 1700-1775) (Eddy 1966:459-60). This group includes Dinétah Utility, Gobernador Indented, and Frances and Gobernador Polychromes. This ceramic group was dated by

(i) historic Spanish documents, (2) valid tree-ring dates in the Gobernador district, (3) association with historic foodstuffs, (4) presence of European-manufactured artifacts in the Gobernador district, and (5) association of new material culture showing the influence of cultural contact between the Navajos and the Refugee Pueblos. (Eddy 1966:459)

Eddy concludes that the data provide a secure date for Ceramic Group B, and thus the Gobernador phase, from A.D. 1700 to 1775.

Brugge (1963, 1981b) conducted a study of Navajo pottery and ethnohistory based on collections made at 278 sites during the Navajo Land Claims studies. As a result of this study, Brugge provided data on several Navajo ceramic types, including Gobernador Polychrome. Brugge's study (1963), however, does not include any mention of Frances Polychrome as identified by the Navajo Reservoir Project. It is unclear, then, whether or not Brugge considers it a separate

type. Brugge, in his description of Gobernador Polychrome, states:

The paste is extremely hard and appears to have been fired at a greater temperature than that usually used for Indian pottery in the Southwest. In spite of the technical knowledge apparent in the selection of clay and firing methods to produce a very hard paste, the finish and decoration are usually sloppily done. It [Gobernador Polychrome] was traded over a wide area, but in small quantities. It shows the influence of several Puebloan styles and was a product of the refugees and their immediate descendants. (1963:19)

Interestingly, in a later publication Brugge specifically discusses Frances Polychrome, noting that it is the earliest painted type in the Navajo area and is the result of “experimentation with local clays and pigments by Pueblo refugees” (1982:292). At a recent ceramic conference that focused on Upper San Juan pottery types (C. D. Wilson and Blinman 1993), however, the participants came to a consensus that Frances Polychrome is best considered a variant of Gobernador Polychrome.

Marshall (1985) drew several interesting conclusions on Navajo production of pottery in general, and Gobernador Polychrome in particular, as a result of work at several Navajo sites along the Cortez CO2 pipeline. Several of the sites investigated apparently date to the Gobernador phase, yet little Gobernador Polychrome was recovered; one of the sites, LA 38949, placed within the Gobernador phase, dates to A.D.  $1650 \pm 70$  (uncalibrated radiocarbon determination) (Marshall 1985:95). Thus, Marshall apparently considers the phase to have begun considerably earlier than A.D. 1700. Based upon vessel forms and technology, Marshall suggests that Dinétah Gray is derived from Athapascan sources and that the Navajo came to the Southwest with knowledge of pottery manufacture; they did not learn it from the Puebloans. Specifically concerning Gobernador Polychrome, Marshall states that

a systematic analysis of 18th century design styles is required before the origin of Gobernador Polychrome can be adequately evaluated. It is possible that various Pueblo sources are indicated, and in many respects the style is peculiar to the Dinétah. Carlson (1965:57) states that “the shapes and designs of Gobernador Polychrome are closest to those in use on the Rio Grande in the late seventeenth and early 18th centuries” and refers to Tewa Polychrome and Jemez Black-on-white as possible sources. The Gobernador style is nonetheless a peculiar tradition, and the common “X”-paneled forms and broad line styles are not normally found in the eighteenth century outside the Dinétah. (1985:161-62)

Marshall also discusses affinities Gobernador Polychrome has with Hopi ceramics and notes that the

vessel forms exhibited by the type are clearly derived from eighteenth-century Puebloan sources. He concludes by suggesting that the earliest forms of Gobernador were made by

displaced Jemez potters who were attempting to copy the Tewa Polychrome styles of the period ... these potters were clearly not familiar with the use of the convex-based puki mold and their application of the oxidation firing techniques to the local Dinétah clays resulted in the yellow-orange firing color. In any event, based on the decorative structure of Gobernador design, it is probable that the Navajo populations were soon responsible for the bulk of the Gobernador Polychrome production. (1985:162)

Concurrent with the large-scale development of coal-gas beds in the Fruitland formation of the Upper San Juan area in the late 1980s, Hogan et al. (1991) developed a research design and overview for the area. The

resulting document provides a good summary of the environment, archaeology, and research issues related to the Upper San Juan area. In the culture history section of the overview, the authors briefly discuss Gobernador Polychrome as it relates to the dating of the Gobernador phase. They suggest that

it [does not] seem likely that the appearance of Gobernador Polychrome is linked to the influx of Pueblo refugees. The pottery itself seems an amalgam of Tewa, Jemez, Hopi, and Navajo attributes that is most parsimoniously explained as a Navajo impression of Pueblo pottery. Moreover, the dates from Tapacito [Ruin] suggest that it was fully developed by A.D. 1690-1694, before the major exodus of Pueblo Refugees from the Rio Grande. (1991:4.51)

Since Tapacito Ruin was apparently occupied for less than ten years (Ronald H. Towner, personal communication, 1995), it would appear that Gobernador Polychrome ceramics from the site were made before the arrival of significant numbers of Puebloan refugees.

Lastly, as discussed above, we have previously suggested (1992b) that data from other sites in the Fruitland area indicate that the manufacture of Gobernador Polychrome began as early as A.D. 1630 in some areas, over sixty years prior to the purported beginning of the Gobernador phase. We have also suggested that Navajo and not Puebloan potters produced most, if not all, Gobernador Polychrome vessels. Both of these points are further elucidated below.

## Recent Excavations at Navajo Sites in the Dinétah

In conjunction with the writing of a recent paper, L. S. Reed (1995) assembled a database of recently excavated Navajo sites in the greater Dinétah area. The database contains information on forty-three sites excavated during three primary projects: Fruitland Coal Gas Project, El Paso Natural Gas North System Expansion Project, and the Arkansas Loop Project (Honeycutt and Fetterman 1994; Hogan et al. 1991; Latady and Goff 1994). Of these sites, fourteen can be dated, by one means or another, to the Gobernador phase. Well-dated sites, however, number only seven of this total. Of these seven sites, only six have ten or more (our minimum requirement for this study) individual Gobernador Polychrome sherds in their ceramic assemblages. Thus, we focused on this group of six well-dated sites containing a minimum of ten ceramics for our study of the distribution and dating of Gobernador Polychrome (Figure 5.1). We recognize, of course, that sites containing Gobernador



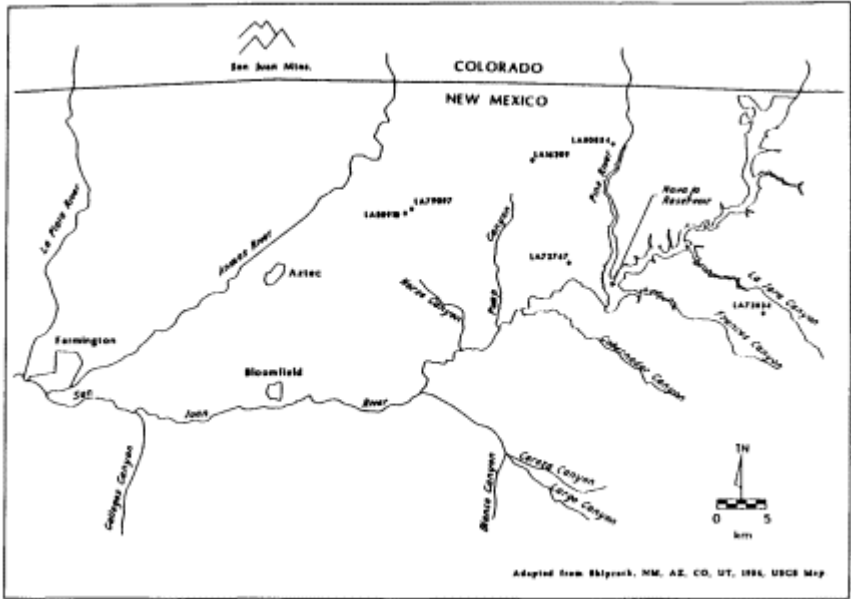


Figure 5.1.

Sites with Gobernador Polychrome selected for study.

Polychrome have been excavated on other projects, particularly the Navajo Reservoir Project (Eddy 1966). Unfortunately, however, few of the Gobernador phase sites excavated during this project, with the exception of pueblito sites, produced any absolute chronometric dates. In addition, we know of other Gobernador phase sites that have been excavated within the last year. Nevertheless, we consider the sample of sites that we worked with for this paper to be representative of prepueblito, early Gobernador phase sites in the Dinétah area.

Our presentation of data from recently excavated Navajo sites focuses on two issues: (1) the description of sites that have Gobernador Polychrome in dated contexts that are earlier than A.D. 1700; and (2) examination of artifacts and features from two of these sites that are indicative of ceramic production

technology. Exploration of these two points allows us to demonstrate that Gobernador Polychrome was being manufactured before A.D. 1700 and was probably being produced by Navajo potters. Thus, the following discussion includes data from six recently excavated sites in the Navajo Reservoir District of northwestern New Mexico. These sites include habitations, camps, and pottery-producing locales. All of these excavated sites have Gobernador Polychrome ceramics in association with reliable chronometric dates that predate the defined range of A.D. 1700 to 1775 for both the Gobernador phase and Gobernador Polychrome.

*Sites with Gobernador Polychrome in Pre-1700  
Contexts*

During excavation of sites along the Arkansas Loop pipeline right-of-way in northwestern New Mexico by Woods Canyon Archaeological Consultants (WCAC) in 1991, two sites contained Gobernador Polychrome in association with reliable, pre-A.D. 1700 (Gobernador phase) dates (Honeycutt and Fetterman 1994; see also Fetterman, this volume). Both of these sites are located northwest of the Navajo Reservoir and less than ten miles south of the Colorado-New Mexico border.

The first of these sites is LA 79097, a Navajo habitation with one hogan structure and two associated activity areas. Excavation of this site yielded 1,337 Dinétah Gray sherds and 47 Gobernador Polychrome sherds. The Gobernador Polychrome sherds from this site were present in Activity Areas 1 and 2. Activity Area 1 is a midden and Activity Area 2 contains a hearth, roasting pit, and storage features. Radiocarbon dates obtained from LA 79097 are problematic (see Fetterman, this volume); the calibrated date range extends from A.D. 900 to 1440. The lower end of this dated range is extremely problematic; the dates from Activity Area 2 cluster between approximately A.D. 1000 and A.D. 1280, which is unreasonably early for Gobernador Polychrome. Given that a Basketmaker III component is located in close proximity to this area and given that the dated material is wood charcoal, the likelihood of contamination is great (Honeycutt and Fetterman 1994). Thus, the earliest dates can probably be discarded. One radiocarbon sample from Structure I has

been dated to A.D. 1270-1440. After rejecting the set of very early dates, the five remaining dates have two-sigma calibrated ranges from A.D. 1160 to 1440. Considering that these dates are quite early, even for a Dinétah phase occupation, it is likely that old-wood and cross-section effects are a problem (see Brown 1990, this volume).

Because of the problems with the initial radiocarbon dates on wood charcoal, Fetterman submitted a sample from Structure I composed predominantly of *Chenopodium* and amaranth spp. remains (Fetterman, this volume; Honeycutt and Fetterman 1994). Because these are annual plants, the old-wood and cross-section effects common to radiocarbon dating of wood are avoided. The date from Structure I is  $325 \pm 90$  BP (uncalibrated) with three calibrated ranges (two sigma): A.D. 1423-1690, A.D. 1729-1811, and A.D. 1923-1955 (University of Arizona No. AA 10763). The first date range, A.D. 1423-1690, has the highest probability (87 percent) of containing the actual date of the sample material. As such, the Gobernador Polychrome sherds associated with the structure and the site are likely to predate 1700.

Site LA 80910 is the second site excavated by WCAC that contained Gobernador Polychrome in a well-dated context. The site is a habitation locus with one hogan and several activity areas. Ceramics from the site include Jemez Black-on-white, Rio Grande Glaze F, Zia Glaze, Dinétah Gray, and Gobernador Polychrome. Of the 492 sherds recovered from the site, 32 are Gobernador Polychrome; all of the latter sherds were located within Activity Area I. One radiocarbon date taken on wood charcoal from this provenience yielded a date of  $360 \pm 50$  BP (A.D. 1440-1650two-sigma calibrated range; Beta No. 49532). Other dates from different proveniences at the site have similar ranges. All of the dates are quite early and undoubtedly reflect old-wood and cross-section effects. Accepting the latter end of the range, however, seems reasonable and *suggests* the presence of Gobernador Polychrome in contexts that date at least fifty years prior to the assumed beginning of the Gobernador phase.

An additional radiocarbon sample consisting of corn remains was submitted from site LA 80910 in an attempt, again, to overcome problems inherent in dating wood charcoal (Honeycutt and Fetterman 1994). The sample from Activity Area I yielded a date of  $175 \pm 120$  BP with a two-sigma, calibrated range of A.D. 1448-1955 (University of Arizona No. AA 10762). As with site LA 79097, the upper end of this range (post-1800) is obviously too recent. A.D. 1659-1883, however, is the period of time most likely (83 percent probability) to encapsulate the actual date of the sample. Thus, we conclude that data from LA 80910

provide some support for the early (pre-1700) presence of Gobernador Polychrome.

Excavations in 1991 and 1992 by La Plata Archaeological Consultants (LPAC) for the Fruitland Coal Gas Development Project documented two sites that have Gobernador Polychrome sherds associated with early radiocarbon and dendrochronological dates (Hovezak et al. 1993). The first of these sites is LA 16209, a Navajo habitation site with two unburned, collapsed forked-stick hogans and associated midden deposits. Dating of the site was attempted by both radiocarbon and tree-ring methods. The radiocarbon dates are very early:  $780 \pm 50$  BP (A.D. 1170-1280two-sigma calibrated range; Beta No. 59193) and  $670 \pm 60$  BP (A.D. 1250-1400two-sigma calibrated range; Beta No. 59194). As Table 5.1 shows, no cutting dates were obtained and the range of noncutting dates from the site is large. The dating results indicate that Structures 1 and 2 were constructed and occupied subsequent to A.D. 1621. Because none of the tree-ring dates from the site are cutting dates, however, the actual dates of construction for both structures cannot be accurately determined and may have occurred many years after A.D. 1621. Nevertheless, the archaeologist responsible for excavating and interpreting the site has

TABLE 5.1 Tree-Ring Dates From LA 16209  
(Steve Fuller, personal communication, 1993)

| <i>Provenience</i> | <i>Sample<br/>Number<br/>(LPM-)</i> | <i>Inner<br/>Date</i> | <i>Inner<br/>Symbol</i> | <i>Outer<br/>Date</i> | <i>Terminal<br/>Ring</i> |
|--------------------|-------------------------------------|-----------------------|-------------------------|-----------------------|--------------------------|
| Structure 1        | 3                                   | 996                   |                         | 1303                  | ++vv                     |
|                    | 12                                  | 1458                  |                         | 1559                  | vv                       |
|                    | 5                                   | 1383 +/-p             |                         | 1582                  | +vv                      |
|                    | 20                                  | 1423 +/-p             |                         | 1595                  | +vv                      |
|                    | 14                                  | 1390 +/-              |                         | 1597                  | vv                       |
|                    | 7                                   | 1442 +/-              |                         | 1597                  | +vv                      |
|                    | 9                                   | 1545 +/-              |                         | 1600                  | +vv                      |
|                    | 19                                  | 1417 +/-p             |                         | 1600                  | vv                       |
|                    | 2                                   | 1436 +/-p             |                         | 1609                  | +vv                      |
|                    | 18                                  | 1406 +/-p             |                         | 1612                  | vv                       |
|                    | 11                                  | 1403 +/-p             |                         | 1615                  | +vv                      |
|                    | 8                                   | 1452 +/-              |                         | 1620                  | vv                       |
|                    | 1                                   | 1421 +/-              |                         | 1621                  | +vv                      |
| Structure 2        | 31                                  | 692                   |                         | 1111                  | vv                       |
|                    | 38                                  | 721 +/-p              |                         | 1126                  | vv                       |
|                    | 37                                  | 936                   |                         | 1149                  | vv                       |
|                    | 35                                  | 960                   |                         | 1211                  | +vv                      |
|                    | 40                                  | 986                   |                         | 12.40                 | +vv                      |
|                    | 28                                  | 982                   |                         | 1326                  | ++vv                     |
|                    | 29                                  | 1435 +/-p             |                         | 1544                  | vv                       |
|                    | 27                                  | 1328 +/-              |                         | 1583                  | ++vv                     |
|                    | 36                                  | 1320 +/-              |                         | 1609                  | vv                       |
|                    | 22                                  | 1321 +/-p             |                         | 1611                  | vv                       |

See appendix for symbol legend.

concluded that the strong clustering of noncutting dates probably results from the harvesting of live trees, although the dates obtained are likely to precede actual harvesting of wood and construction of both hogans (Tim Hovezak, personal communication, 1995).

Gobernador Polychrome ceramics were found in small quantities within the fill of both Structure 1 and the midden associated with Structure 2. Dinétah Gray sherds were also recovered from the site and were found in all excavated units. Because of uncertainty in determining the dates of construction and occupation for the site, we cannot conclude that the site provides an unequivocal case for the occurrence of Gobernador Polychrome in a pre-1700



TABLE 5.2 Tree-Ring Dates From LA 72767  
(Steve Fuller, personal communication, 1993)

| <i>Provenience</i> | <i>Sample<br/>Number<br/>(LPM-)</i> | <i>Inner<br/>Date</i> | <i>Inner<br/>Symbol</i> | <i>Outer<br/>Date</i> | <i>Terminal<br/>Ring</i> |
|--------------------|-------------------------------------|-----------------------|-------------------------|-----------------------|--------------------------|
| Structure 1        | 137                                 | 1441                  | p                       | 1592                  | ++vv                     |
| Structure 2        | 117                                 | 748                   |                         | 984                   | ++vv                     |
|                    | 141                                 | 1539                  |                         | 1641                  | vv                       |
|                    | 132                                 | 1428                  | +/-p                    | 1655                  | ++vv                     |
|                    | 142                                 | 1420                  | +/-p                    | 1676                  | +r                       |
|                    | 121                                 | 1524                  | p                       | 1676                  | +rG                      |
|                    | 128                                 | 1618                  | p                       | 1677                  | B                        |
|                    | 135                                 | 1595                  | p                       | 1677                  | rB                       |
|                    | 136                                 | 1597                  | p                       | 1677                  | rG                       |
|                    | 122                                 | 1580                  | +/-p                    | 1677                  | rG                       |
|                    | 133                                 | 1578                  | +/-p                    | 1679                  | G                        |

See appendix for symbol legend.

context. The chronometric evidence can, however, be used to infer an occupation during the period from A.D. 1630 to 1700.

The second site excavated by LPAC, LA 72767, consisted of the remains of two collapsed, burned hogans and associated midden deposits (Hovezak et al. 1993). The site was dated exclusively by dendrochronology and produced dates that make it the best dated site from which Gobernador Polychrome has been recovered. Table 5.2 shows dates from both structures. The cluster of cutting dates from Structure 2 indicates that it was constructed in A.D. 1677 (Steve Fuller, personal communication, 1993). Structure 1 produced a single, uninterpretable noncutting date. Ceramics recovered from the site number over 4,000, the largest assemblage in the database of forty-three

sites used in this study. Dinétah Gray sherds represent more than 95 percent of the ceramic assemblage, and were found in all cultural deposits. Two hundred eighty-two Gobernador Polychrome sherds were recovered from the site; again, this represents the largest assemblage used in our study. With a single exception, all Gobernador Polychrome ceramics were retrieved from midden deposits associated with both structures. Although Structure 1 is undated, the tight cluster of tree-ring dates indicating an A.D. 1677 construction date for Structure 2 clearly identifies this site as a locus where Gobernador Polychrome was used in a pre-1700 context.

A Navajo site excavated by the Division of Conservation Archaeology (DCA) in 1990 also provides evidence of Gobernador Polychrome in association with remains that predate A.D. 1700 (Ayers et al. 1993). The site, LA 72834, is an extended-use activity area. Evidence of ceramic manufacture from this site is extensive and includes a probable kiln, unfired clay nodules, red hematite present in various forms, several Dinétah Gray sherds with red pigment on their interior surfaces, one mano fragment stained with red hematite, and, finally, a mealing bin (Feature 3) with evidence of clay grinding. The Gobernador Polychrome sherds from the site were extremely friable, and may represent an early attempt at producing the ware. Radiocarbon dates from the site were taken from Feature 4 (the probable kiln) and from a brush structure (Feature 1). The sample from Feature 3 yielded a radiocarbon date of  $400 \pm 65$  BP (A.D. 1400-1650two-sigma calibrated range; Beta No. 38392). The sample from Feature 1 yielded a date of  $710 \pm 60$  BP (A.D. 1220-1392two-sigma calibrated range; Beta No. 43247). Because the only dates for the site are derived from radiocarbon dating of wood charcoal, we do not consider the site to provide unequivocal evidence for the early occurrence of Gobernador Polychrome. The evidence of ceramic production, however, is compelling, and for this reason, we have included the site in our discussion. In sum, even if only the later portion of the A.D. 1410-1650 date range is considered reliable, the site may constitute a pre-1700 Gobernador Polychrome production locus.

Archaeological excavations in the Grassy Canyon area

have also revealed a Navajo site containing Gobernador Polychrome and chronometric dates before the defined beginning of the Gobernador phase (Brown et al. 1992). Site LA 80854 is a Navajo habitation containing a forked-stick hogan and associated activity area. In terms of the ceramic assemblage present on the site, Gobernador Polychrome sherds outnumber Dinétah Gray by a ratio of 2 to 1. Such a high percentage of Gobernador Polychrome in a habitation assemblage is quite unusual and may indicate onsite ceramic production.

Chronometric dates from the site suggest an occupation during the two centuries prior to the Pueblo Revolt of 1680 (Table 5.3). Two thermoluminescence dates were run on Gobernador Polychrome sherds from the site. One of the dates has a very early range (A.D. 1251-1467) and can probably be rejected (Brown et al. 1992). The second thermoluminescence date ranges from A.D. 1648 to 1716 and appears more reliable. Two radiocarbon dates were processed from the site, one on wood charcoal and the other on corn. The wood charcoal date was  $670 \pm 50$  BP (A.D. 1259-1405 two-sigma calibrated range; Beta No. 46482), and is quite similar to the early dates from other sites discussed above. The date from

TABLE 5.3. Absolute Dates from LA 80854 (from Brown et al. 1992).

| <i>Provenience</i>        | <i>Laboratory Number</i> | <i>Mean</i> | <i>Standard Deviation</i> | <i>Two-Sigma Calibrated Range</i> |
|---------------------------|--------------------------|-------------|---------------------------|-----------------------------------|
| Radiocarbon Dates         |                          |             |                           |                                   |
| Feature 2 (corn)          | Beta 46483               | 520 b.p.*   | 100                       | A.D. 1280-1631                    |
| Feature 3 (wood charcoal) | Beta 46482               | 670 b.p.    | 50                        | A.D. 1259-1405                    |
| Thermoluminescence Dates  |                          |             |                           |                                   |
| Feature 3 Area            | UWTL-85                  | A.D. 1684   | 18                        | A.D. 1648-1716                    |
| Feature 3 Area            | UWTL-86                  | A.D. 1359   | 54                        | A.D. 1251-1467                    |
| Obsidian Hydration Date   |                          |             |                           |                                   |
| General Site              | DL-91-515                | A.D. 1599   | 56                        | A.D. 1487-1711                    |

\*C13 adjusted mean

a burned corn sample produced a two-sigma calibrated range from A.D. 1280 to 1631. The date on wood charcoal is earlier than the corn-derived date, again indicating problems with old-wood and cross-section effects. Because of these problems, the corn date is considered more reliable. Lastly, an obsidian hydration date from the site ranges from A.D. 1487 to 1711. The periods of overlap for the three dating techniques are A.D. 1487 to 1631 for radiocarbon and obsidian

hydration and A.D. 1648 to 1711 for thermoluminescence and obsidian hydration. Thus, data from LA 80854, particularly the radiocarbon date on corn, indicate a high probability that Gobernador Polychrome was being used at the site for at least fifty years prior to A.D. 1700.

#### Evidence of Ceramic Production

Evidence for on-site production of Gobernador Polychrome vessels is present at two of the sites discussed above: LA 72834 and LA 80854. LA

72834 contains a variety of material indicative of ceramic production (Ayers et al. 1993). First, the site has a probable kiln feature (Feature 4) that was aboriginally excavated into sandstone bedrock. Little in the way of macrobotanical remains was recovered from the kiln, indicating that the feature was probably cleaned subsequent to its final use and abandonment. Several ash dumps were identified within a few meters of the feature. Second, a mealing bin (Feature 3) present on the site contained no cultivated vegetal remains and few artifacts. The feature did contain a substantial quantity of clay between the masonry slabs used in its construction, however. The clay may have been used to set and line the stones, or both, or it may have accumulated from the grinding of clay in preparation for pottery making. Third, a number of artifacts recovered from the site are very suggestive of ceramic production activities including two unfired clay nodules, a mano fragment smeared with red hematite, several modified and unmodified hematite pebbles, and several Dinétah Gray sherds with unfired red hematite-derived pigment on their interior surfaces. A considerable quantity of hematite was also found smeared into the sediment matrix in the areas surrounding Features 4 and 3. Finally, the majority of Gobernador Polychrome sherds present on the site were extremely friable and exfoliated indicating either that these sherds were used as "wasters" in ceramic firing activities or that the sherds represent an early attempt to produce a decorated ware that failed to achieve the necessary high firing temperature.

Site LA 80854 does not contain evidence of ceramic

production as conclusive as that of LA 72834. There are, however, a few indications of ceramic production. First, several unfired clay nodules were recovered from the site in a variety of contexts. These nodules are thought to represent raw clay ready for use in pottery manufacture. Second, the fact that Gobernador Polychrome sherds outnumber Dinétah Gray sherds by a 2 to 1 ratio is very interesting because we know of no other sites where this is the case. This high percentage of Gobernador Polychrome suggests that the inhabitants of the site had ready access to these vessels, perhaps because they were made on-site. An interesting technological aspect of the ceramics from the site relates to selection of clays. Refiring tests on Gobernador Polychrome and Dinétah Gray produced similar colors and vitrified pastes (C. D. Wilson 1992). On the basis of these results, Wilson (1992:74) concludes “common clay sources or at least geological exposures were utilized in the production of vessels of the two types.” Thus, although the types are technologically different, they were both locally produced using the same raw materials. This is an important finding because it suggests that both Dinétah Gray and Gobernador Polychrome ce-



amics were produced by Navajo potters. Although most researchers agree that Dinétah Gray was Navajo produced, most have not held similar views concerning Gobernador Polychrome.

## Synthesis and Discussion

Our discussion summarizes the data presented above on the six sites with Gobernador Polychrome in well-dated contexts. In addition, we discuss dates from recently excavated sites that lack Gobernador Polychrome. We also explore the stylistic nature of Gobernador Polychrome via a brief examination of it and the Puebloan types from which it was presumably derived.

### *Summary of Dated Contexts with Gobernador Polychrome*

Figure 5.2 is a graph of all reliable dates from contexts with associated Gobernador Polychrome. Reliable, in this context, is defined as any date derived from one of three methods: (1) radiocarbon dates on corn or other annual plant remains; (2) tree-ring dates; and (3) thermoluminescence dates. We discarded radiocarbon dates derived from wood charcoal, thus excluding site LA 72834 from further discussion, and also discarded the obsidian hydration date from LA 80854 because of its large range. One site, LA 72767, has a tight tree-ring cutting-date cluster and provides the best evidence for the presence of Gobernador Polychrome in a pre-1700 context. The remaining dates illustrated in Figure 5.2 include a small cluster of noncutting, tree-ring dates from site LA 16209, four C13-corrected radiocarbon dates on corn or other annual plants, and one direct

thermoluminescence date on a Gobernador Polychrome sherd. Five sites are represented: LA 16209, LA 72767, LA 79097, LA 80854, and LA 80910. We consider the reliable dates recovered from these sites to indicate that, at least at these locations, Gobernador Polychrome was being used, and at one or two of the sites, produced, by at least A.D. 1650.

In an attempt to shed additional light on the dating of Gobernador Polychrome and the Gobernador phase, we examined another set of dates. These dates are from sites we initially examined in our study but which lack Gobernador Polychrome in their ceramic assemblages. The dates from these sites, however, provide a very interesting comparison to those obtained from the group of sites with Gobernador Polychrome. Thus, Figure 5.3 is a composite graph of all dates depicted in Figure 5.2 along with dates from the sample of sites lacking Gobernador Polychrome. (For ease of discussion, sites lacking Gobernador Polychrome are

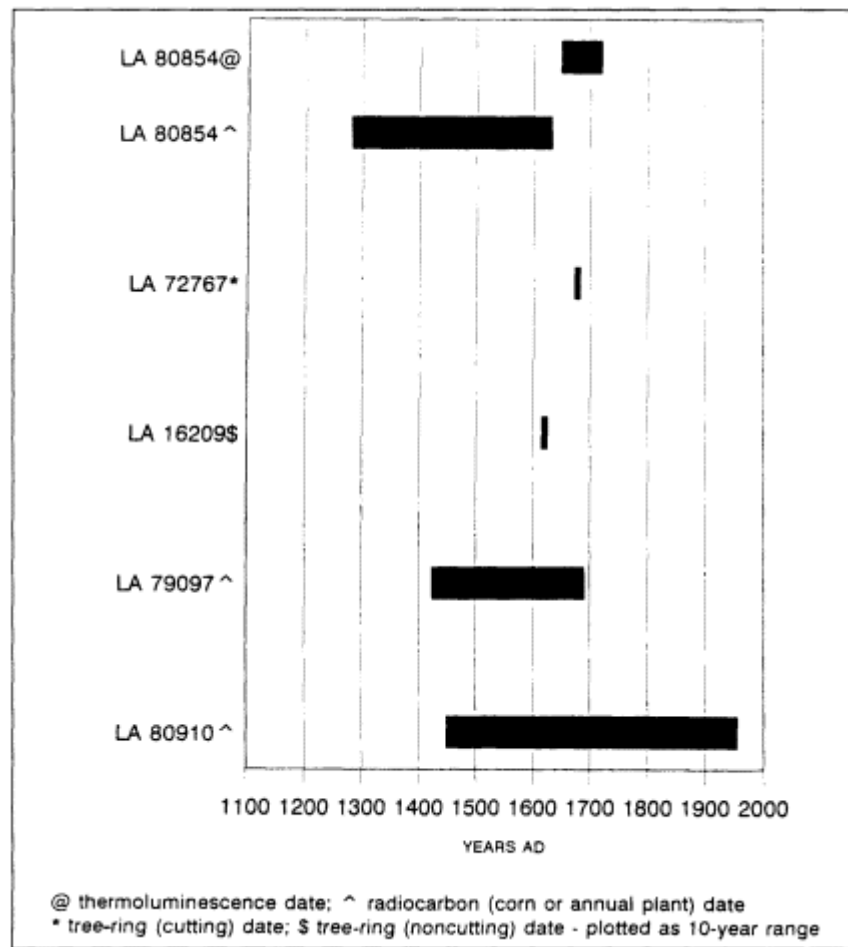


Figure 5.2.

Graph of reliable dates associated with Gobernador Polychrome.

designated Group 2 and sites with Gobernador Polychrome are designated Group 1). Figure 5.3 clearly shows that the dates of the Group 2 sites overlap those for the Group 1 sites. Furthermore, six of the dates from the Group 2 sites have ranges that extend beyond A.D. 1700. This latter finding is particularly surprising since the Group 2 sites should date earlier than Group 1 and should not postdate A.D. 1700. Interestingly, both sets of tree-ring cutting dates from Group 2 sites predate 1700, although two noncutting dates are present in the mid-1700s. In short, the comparison of dates from the Group

1 and Group 2 sites did not produce the distinct and mutually exclusive temporal distribution that is expected

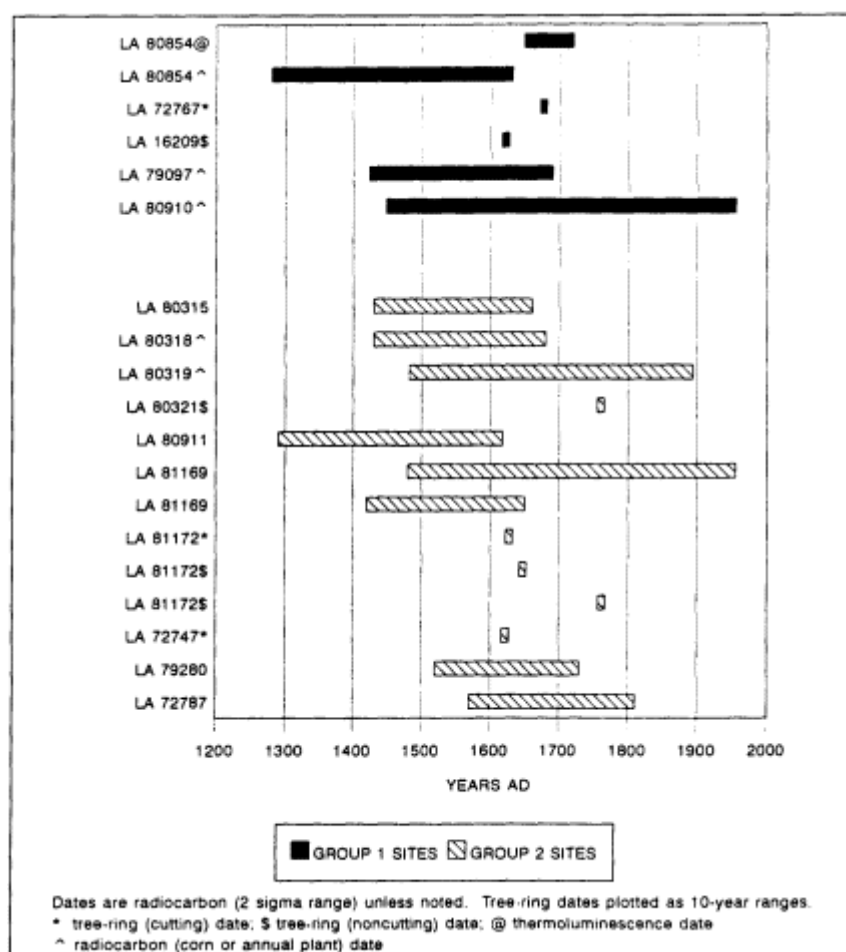


Figure 5.3.

Graph of dates from sites with and without Gobernador Polychrome.

given that the presence of Gobernador Polychrome is one of the main indicators used to separate pre- and post-1700 sites.

What these findings indicate is that the distribution of Gobernador Polychrome may not be temporally significant within the commonly used Navajo phase sequence. Given the existence of a sizeable sample of post-1700 sites that lack Gobernador Polychrome, it is clear that the simple presence or absence of the type cannot be used conclusively to separate sites temporally. Indeed, when knowledge of the discontinuous distribution of Gobernador Polychrome and

its appearance in the mid-seventeenth century is combined with the data that show the construction of

pueblitos to be a largely post-1720 phenomenon (Towner 1992, this volume), it is clear that the architectural pattern (construction and use of pueblitos) and the main material culture marker (Gobernador Polychrome) for the Gobernador phase simply do not converge at A.D. 1700 as expected. Gobernador Polychrome dates as early as A.D. 1630 at some sites and is not present on other sites that postdate 1700, and the majority of pueblitos were not even constructed prior to A.D. 1720.

One potential solution to the discontinuous distribution of Gobernador Polychrome is a simple geographic division; perhaps sites with Gobernador Polychrome are located predominantly to the north, for example, and those without, to the south. Unfortunately, no such simple difference is observable. Most of the sites examined in the study are located north of the San Juan River, but the sites cannot be divided into distinct groups on either a north-south or east-west axis. In short, a spatial argument cannot be made to explain the difference between sites with and without Gobernador Polychrome (L. S. Reed 1995).

Given that some post-1700 sites lack Gobernador Polychrome sherds while other, earlier sites have abundant sherds, some Navajo groups simply may have never adopted the type. These groups may have continued to use predominantly plain-ware ceramics, imported Puebloan types, or both, and never made the transition to Gobernador Polychrome. As for the differences between these postulated groups, no clear answer is apparent. Gobernador Polychrome may have

served as a ceremonial or prestige item, thus having a necessarily limited distribution. Or, Gobernador Polychrome may have been simply the product of one clan or set of related clans who used it exclusively.

### *Stylistic Origin of Gobernador Polychrome*

In an earlier paper, we briefly discussed the stylistic attributes of Gobernador Polychrome as they relate to its probable origin and the ethnicity of its makers:

Dittert (1958a) suggests that Gobernador Polychrome appears to represent a combination of elements present in both Hopi and Rio Grande glazeware ceramics.

Carlson (1965), on the other hand, suggests that Gobernador Polychrome was derived from elements present in Jemez Black-on-white and Tewa Polychromes. We conclude that Dittert's suggestion is more reasonable given that Gobernador Polychrome is essentially a yellow ware, thus more closely resembling Rio Grande and Hopi ceramics than Jemez and Tewa types. Furthermore, we sug-



gest that in terms of design styles and motifs, Gobernador Polychrome appears to reflect the style of both Rio Grande glazes and Hopi ceramics. If a Puebloan group was manufacturing Gobernador Polychrome, then it is unlikely that two so diverse styles would be mixed. It is more likely that the Navajo would combine elements of several Puebloan ceramics in order to produce a unique ceramic type such as Gobernador Polychrome. Second, given that most of the refugees who went to live with the Navajo were apparently derived from the Jemez and Tewa pueblos, it is unlikely that these groups, who had an essentially black-on-white ceramic tradition, would have manufactured a yellow ware with polychrome designs. (L.S. Reed and Reed 1992b:102)

As mentioned above, Marshall (1985) also indicates that Gobernador Polychrome represents a unique type, although he suggests its origin lies in experimentation by Jemez potters. While noting this possibility, we suggest that it is unreasonable to assume that experienced potters who were used to producing black-on-white pottery would be required to experiment in order to produce a new pottery type. We suggest that it is more parsimonious to view Gobernador Polychrome, with its unique suite of stylistic traits and dramatic yellow/orange background, as an “experiment” undertaken by potters who were just beginning to produce decorated wares (i.e., Navajo potters). We further suggest that an exhaustive stylistic analysis of Gobernador Polychrome, as suggested by Marshall (1985), be undertaken to identify its origins. Along with a stylistic analysis of Gobernador Polychrome, analysis of Puebloan ceramic types, such as Rio Grande

Glazeware, Jeddito Yellowware, and Jemez Black-on-white, is also necessary to discern potential stylistic influences on the production of Gobernador Polychrome. Only through this type of stylistic assessment can the origin of this unique polychrome type be further elucidated.

## Conclusions

In this paper we have made several points regarding the origin and distribution of Gobernador Polychrome. First, we have presented data indicating that at several sites in the Upper San Juan area Gobernador Polychrome was being produced and used by at least A.D. 1650. Second, our examination of design styles and technological aspects of Gobernador Polychrome suggests that it was made by Navajo potters who drew on the designs and motifs present on a number of Puebloan types. Finally, the distribution of chronometric dates from sites with and without Gobernador Polychrome

indicates significant overlap between what should be temporally distinct sites if the types are distinct temporal markers. Although many of the radiocarbon dates are problematic because of old-wood and cross-section effects, both groups of sites discussed are subject to these problems, yet have very similar temporal spans. In addition, many of the dates used in our analysis are not subject to old-wood or cross-section problems.

In our opinion, there are significant problems with the current definitions used to separate Gobernador phase sites from earlier sites. We also suggest that a phase-based sequence is not the most appropriate tool for describing and classifying early Navajo remains. Within the context of the existing phase sequence, however, we propose (following Brown, this volume) dividing the current Gobernador phase into two subphases: the early subphase dates from A.D. 1630 to mark the initial appearance of Gobernador Polychrome and ends at A.D. 1720. The late subphase begins at A.D. 1721 (to mark the beginning of major construction of pueblitos) and ends at A.D. 1775. Although we do not believe that an easy solution to the Gobernador phase dilemma is at hand, we are certain that additional work will continue to provide the data necessary to more fully address the issue.

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## 6

# Protohistoric and Early Historic Navajo Lithic Technology in Northwest New Mexico

Timothy M. Kearns

*“The impression remains that the Navajos were little concerned with the specific form of the stone artifacts used.”*

(Hester 1962a:55)

## Introduction

The investigation of the protohistoric and early historic Navajo archaeology in northwest New Mexico began in the early part of this century, but there has not been an overview of Navajo lithic artifacts since the Navajo Reservoir Project summaries in the early 1960s (Dittert et al. 1961; Eddy 1966; Hester 1962a; Hester and Shiner 1963). My intent in this paper is to synthesize currently available lithic assemblage data from protohistoric and early historic Navajo sites in the Dinétah area and from contemporaneous sites in adjacent areas. The goals are to present an overview of the salient aspects of the protohistoric and early historic Navajo lithic technologies, to address regional variation in stone artifact assemblages identified as Navajo, to compare protohistoric and early historic Navajo lithic technology, to compare Navajo and Ute lithic technologies, and to address some of the behavioral implications of the lithic assemblages. In this paper I

identify a set of stone artifact types and technological attributes as characteristic of the protohistoric and early Navajo occupation in northwest New Mexico. None of these artifact types or attributes are unique to the Navajo, however, and it is not my intent to imply that they are Navajo diagnostics to the exclusion of other cultural groups or archaeological complexes.

### *Research Objectives*

The catalyst for this study was a La Plata Coal Mine excavation project conducted by the Division of Conservation Archaeology (DCA) at three sites in the La Plata Valley of northwest New Mexico. These sites contained fifteen dated, spatially segregated loci interpreted as manifestations of the protohistoric Navajo Diné'tah phase (A. C. Reed et al. 1988). Observations during my analysis (1988b) of the lithic artifacts from these sites prompted these three hypotheses about protohistoric and early historic lithic technology in northwest New Mexico:

1. Most protohistoric and early historic sites are characterized by relatively small stone artifact assemblages.
2. Considerable intersite variability is evident among protohistoric and early historic stone artifact assemblages. The relative occurrence and frequency of different artifact types, tool types, and raw materials varies substantially among protohistoric and early historic site assemblages, and is particularly evident between loci at large multiloci sites.
3. There are consistently reoccurring common denominators in protohistoric and early historic stone artifact assemblages. Although varied in their relative frequency and, importantly, their recognition and reporting, there are distinctive stone tool types, attributes, and lithic materials that are characteristic of protohistoric and early historic lithic technologies.

In my initial testing of these hypotheses (1994, 1995) I uncritically accepted the identification of the sites as Dinétah or Gobernador phase Navajo based on the presence of Dinétah Gray and Gobernador Polychrome ceramics and remnants of forked-stick hogan-style architecture or pole and brush shelters. Subsequent criticism of the cultural affiliations attributed to the sites prompted, in this paper, a change in designation (to protohistoric and early historic) and the formulation of three additional hypotheses, which are as follows:

4. Continuity is evident in the range and style of stone tools and use of exotic lithic materials between protohistoric and early historic sites in the Dinétah and among contemporaneous sites with Navajo ceramics in adjacent areas to the north and west.

5. Although continuity in artifact type and exotic material use can be demonstrated between early historic (Gobernador phase)



and protohistoric (Dinéah phase) assemblages, lithic technological change is also evident.

6. Finally, by comparing similarities and differences in stone tool type, raw material selection, and assemblage content continuity, Navajo and Ute lithic technologies may be used to examine the evidence for Ute or Navajo cultural affiliation of the protohistoric sites north of the San Juan River.

### *Spatial, Temporal, and Cultural Considerations*

The protohistoric and early historic lithic assemblage data used in this study are organized by geographic area and, to the extent possible, temporal period. The four geographic districts include (1) the Gobernador-Largo-Blanco (GLB) District encompassing the Dinéah region of Gobernador, Largo, and Blanco canyons south of the San Juan River; (2) the Navajo Reservoir District (NRD) covering the northern Dinéah region near the San Juan-Los Pinos-Piedra river confluence and the nearby northern and eastern tributaries; (3) the Gallegos District (GMD) encompassing the mesas west of Dinéah and south of the San Juan River near Farmington and Bloomfield; and (4) the Animas-La Plata (ALP) District covering the area drained by the Animas and La Plata Rivers west of Dinéah and north of the San Juan River (see Brown, this volume, Figure 3.2). Additional data from undeniably historic period Navajo sites in the Chaco Canyon-Chacra Mesa and Big Bead Mesa areas are also examined as they pertain to Navajo cultural continuity.

Although difficult to achieve, establishing cultural

affiliation, maintaining accurate temporal control, and integrating time and ethnicity are essential to this comparative study. The cultural affiliations of the studied sites generally follow those assigned by the investigators and are identified for each data set. The correctness of the cultural identifications, particularly for those sites north of the San Juan River in the ALP district, is addressed below.

The temporal framework is divided into the late prehistoric, protohistoric, and early historic periods. D. R. Wilcox and Masse (1981:14) define the protohistoric period as between A.D. 1450 and 1700. The late prehistoric period immediately precedes the protohistoric, and the early historic period follows it. When ceramics indicative of a Navajo cultural affiliation are present on a protohistoric or early historic site in northwest New Mexico, most researchers have used the Dinétah and Gobernador Navajo phase designations (Dittert 1958b; Hester 1962a; Hester and Shiner 1963). Although debate continues regarding the timing of these phases

(see Schaafsma, Brown, and Reed and Reed, this volume), a time frame of ca. A.D. 1500-1700 is generally applicable to the Dinétah phase (Brown and Hancock 1992; L. S. Reed and Reed 1992a) and ca. A.D. 1700-1775 for the succeeding Gobernador phase (Dittert et al. 1961; Hester 1962a; L. S. Reed and Reed 1992a).

Although most of the selected sites contain good chronometric data, some do not. This is particularly vexing where the cultural affiliation of a site is potentially ambiguous, especially relative to the debate of Ute versus Navajo occupation north of the San Juan River (see Schaafsma, Brown, this volume). Although dating problems (Brown 1990) may occur, sites are generally assigned to temporal periods based on associated chronometrics and identifications made by the investigators. The Dinétah phase is, for the purposes of this paper, generally equated with the protohistoric period and the Gobernador phase generally equated with the early historic period. Late prehistoric sites, though rare, are assigned based on the absence of painted ceramics and precontact radiocarbon ages.

### *Database*

The hypotheses are evaluated using published data on protohistoric and early historic sites in northwest New Mexico. Stone tool types and raw material types provide the primary data. Although information is drawn from a number of sites for general discussion purposes, only thirty-seven sites with sufficient lithic assemblage descriptions are included in the sample (Table 6.1). Seven sites are from the GLB District and

include a late prehistoric aceramic forked-stick hogan site, one protohistoric site, four indeterminant protohistoric-historic sites, and one multicomponent protohistoric and historic site. The indeterminant designation is used for sites where there is a predominance of Dinétah Gray sherds, few Gobernador Polychrome or Pueblo IV-V sherds, and the radiocarbon determinations, if available, are ambiguous because of potential old-wood and cross-section effect skewing (Brown 1990).

Only two sites from the Navajo Reservoir District are included in the sample (see Table 6.1). Both were identified as Gobernador phase sites (Ayers et al. 1993; Brown et al. 1992), but radiocarbon dates place the occupations in the late protohistoric period. They are classified as indeterminate/protohistoric sites.

Four sites are in the Gallegos District sample. Two are historic period sites assigned to the Gobernador phase and the other two are protohistoric period sites assigned to the Dinétah phase (see Table 6.1). Twenty-

four sites are in the ALP District sample. One aceramic site in the La Plata Valley (LA 59954) has been dated between A.D. 1350 and 1450 or 1500 and may represent a late prehistoric period occupation (Brown 1992:110, 115). Thirteen sites are protohistoric or predominantly protohistoric. The two predominantly protohistoric sites (DCA-86-80 and DCA-86-81) are large multiloci sites. Both had a single locus with a radiocarbon determination in the early historic period. They are included in the protohistoric sample because both loci contain Dinétah Gray sherds but lack Gobernador Polychrome or Pueblo IV-V tradewares and have obsidian hydration or thermoluminescence dates in the protohistoric period. Five early historic period sites are in the ALP sample. There are also five indeterminant protohistoric-historic period sites (see Table 6.1).

The uneven site distribution among the four districts is unfortunate, but is simply a by-product of archaeological research conducted over the last ten years. Likewise, the absence of pueblito site data is regrettable, but the few excavated pueblitos lack sufficient detail to include in the sample; data from pueblito sites are included in the general discussion, however. The thirty-seven sample sites provide a point of departure and are supplemented with other data. Because of the unevenness of the data, this overview is general in approach and specific metric and statistical attributes are not presented.

### Assemblage Size

The hypothesis that many protohistoric and early historic lithic assemblages are relatively small was examined by summarizing data from the thirty-seven sites (Figure 6.1). Despite problems of sampling strategy, screen size, fragmentary artifacts, and analyst recognition, the data indicate that most (78 percent) of the lithic assemblages contain fewer than five hundred items, including debitage. More than half (59 percent) of the sites contain fewer than two hundred stone artifacts and roughly one-third (35 percent) have less than one hundred lithic items.

The two aceramic (late prehistoric?) sites (LA59954, SJC-86) are both characterized by small assemblages (54 and 148 artifacts). The smaller assemblage (SJC-186) was associated with a forked-stick hogan, and included milling equipment, flaked stone tools, and debitage (Ford 1979). The other aceramic site (LA 59954) was a specialized processing locale with a large oxidized pit feature that contained milling equipment (48 percent), flaked stone tools (24 percent), and debitage (28 percent) (Brown 1991).

The largest and the smallest assemblages are from early historic sites. Only fifteen artifacts were recovered from LA 80321 (Honeycutt and

TABLE 6.1 Archaeological Sites Used in the Lithic Analysis.

| <i>Site<br/>Number</i> | <i>Temporal<br/>Period</i> | <i>Geographic<br/>Reference<br/>District</i> |                                 |
|------------------------|----------------------------|----------------------------------------------|---------------------------------|
| SJC-186                | Lt Prehistoric             | GLB                                          | Ford 1979                       |
| LA 38946               | Protohistoric              | GLB                                          | Marshall 1985                   |
| LA 38949               | Ind Pro/Historic           | GLB                                          | Marshall 1985                   |
| LA 38951               | Mix Pro/Historic           | GLB                                          | Marshall 1985                   |
| SJC-1320               | Ind Pro/Historic           | GLB                                          | Hefner 1987                     |
| SJC-1321               | Ind Pro/Historic           | GLB                                          | Hefner 1987                     |
| SJC-1322               | Ind Pro/Historic           | GLB                                          | Hefner 1987                     |
| LA 82834               | Ind Pro/Historic           | NRD                                          | Ayers et al. 1993               |
| LA 80854               | Ind Pro/Historic           | NRD                                          | Brown et al. 1992               |
| LA 16151               | Protohistoric              | GMD                                          | Hogan 1992                      |
| LA 80986               | Protohistoric              | GMD                                          | Latady and Goff<br>1994         |
| LA 17483               | Historic                   | GMD                                          | Cella et al. 1984               |
| LA 17484               | Historic                   | GMD                                          | Cella et al. 1984               |
| LA 59954               | Lt Prehistoric             | A-LP                                         | Brown 1991                      |
| LA 61828               | Protohistoric              | A-LP                                         | Brown 1991                      |
| LA 61838               | Protohistoric              | A-LP                                         | Brown 1991                      |
| LA 61848               | Protohistoric              | A-LP                                         | Brown 1991                      |
| LA 61851               | Protohistoric              | A-LP                                         | Brown 1991                      |
| LA 61882               | Protohistoric              | A-LP                                         | Brown 1991                      |
| DCA-86-79              | Protohistoric              | A-LP                                         | A.C. Reed et al.<br>1988        |
| DCA-86-81              | Protohistoric              | A-LP                                         | A.C. Reed et al.<br>1988        |
| DCA-86-80              | Protohistoric              | A-LP                                         | A.C. Reed et al.<br>1988        |
| DCA-82-207             | Protohistoric              | A-LP                                         | Hancock et al.<br>1988          |
| DCA-86-208             | Protohistoric              | A-LP                                         | Hancock et al.<br>1988          |
| LA 80316               | Protohistoric              | A-LP                                         | Honeycutt and<br>Fetterman 1994 |
| LA 80318               | Protohistoric              | A-LP                                         | Honeycutt and<br>Fetterman 1994 |

|            |                  |      |                              |
|------------|------------------|------|------------------------------|
| LA 80319   | Protohistoric    | A-LP | Honeycutt and Fetterman 1994 |
| LA 80963   | Ind Pro/Historic | A-LP | Honeycutt and Fetterman 1994 |
| LA 80911   | Ind Pro/Historic | A-LP | Honeycutt and Fetterman 1994 |
| LA 80315   | Ind Pro/Historic | A-LP | Honeycutt and Fetterman 1994 |
| LA 81175   | Ind Pro/Historic | A-LP | Honeycutt and Fetterman 1994 |
| LA 80910   | Ind Pro/Historic | A-LP | Honeycutt and Fetterman 1994 |
| LA 79097   | Ind Pro/Historic | A-LP | Honeycutt and Fetterman 1994 |
| LA 80321   | Historic         | A-LP | Honeycutt and Fetterman 1994 |
| LA 81172   | Historic         | A-LP | Honeycutt and Fetterman 1994 |
| DCA-82-36  | Historic         | A-LP | Hancock et al. 1988          |
| DCA-84-407 | Historic         | A-LP | Hancock et al. 1988          |

GLB = Gobernador-Largo-Blanco District

NRD = Navajo Reservoir District

GMD = Gallegos Mesa District

ALP = Animas-La Plata District

The Ind Pro/Historic designation identifies sites where the radiocarbon determinations place the occupation in a different period than that assigned by the site investigator, or where the ceramic and radiocarbon data, if available, are ambiguous.



Fetterman 1994). The Navajo component at this ALP District site consists of a single large storage cist. The associated artifacts, debitage, and a single anvil fragment presumably reflect the limited nature of the associated activities. Site LA 17483 contains the greatest number of lithic artifacts ( $n = 2,694$ ), more than double the number of the next largest assemblage. This Gallegos District site was a specialized camp and processing locale associated with antelope drives (Cella et al. 1984). The large number of artifacts, particularly projectile points, reflects the repetitive use of the locale and the requirements of retooling and refurbishing hunting and game-processing tool kits.

The second largest assemblage is from La Ceja Blanca (LA 38951). This GLB District site was a large multiloci, multicomponent protohistoric and early historic habitation site (Marshall 1985). The assemblage size ( $n = 1,201$ ) reflects site size, complexity of activities, and frequency and duration of occupation. Eight (50 percent) of the protohistoric sites contain assemblages with fewer than three hundred artifacts. Four protohistoric sites (LA 16151, LA 38946, LA 80986, DCA-82-208) contain relatively large numbers of artifacts (511-823) and are generally small, single component sites with few spatially discrete loci. The number of ground stone artifacts varies considerably (6-50), but flaked stone tools (40-80) and debitage (436-693) are relatively abundant. The size of the assemblages and tool diversity indicate a base-camp settlement type and moderate occupation duration, perhaps a single season.

Although some protohistoric and early historic period lithic assemblages are relatively large, most are small. This is particularly evident when a sample of individual loci from the large multiloci sites in the La Plata Valley are examined (Figure 6.2). There is some variability in loci assemblage size; however, the majority (61 percent) of the loci contain fewer than one hundred items and fifteen loci (84 percent) contain fewer than two hundred items. The smaller loci are not simply limited-activity areas; six contain structures.

The observation that most protohistoric and early historic sites contain small lithic assemblages is valid for both the protohistoric and early historic periods (see Figure 6.1) and for all four districts. The small assemblage size indicates short duration occupation by relatively small social units. The existence of a few large multiloci protohistoric sites, like DCA-86-81, may indicate repetitive use of the general site locale or coterminous occupation by spatially segregated social units. In general, however, occupation duration was usually short and residential mobility appears to have been relatively high.

Assemblage size generally exhibits a gently rising curve from small to

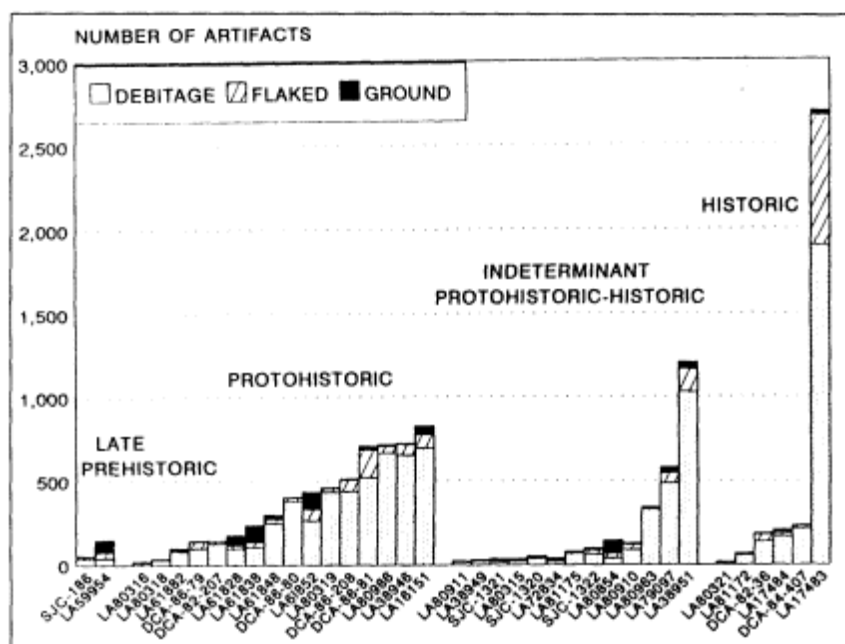


Figure 6.1.

Lithic assemblage size variability at protohistoric and historic sites in northwest New Mexico.

large (see Figure 6.1) and crosscuts time periods; it is also apparent in the intrasite loci (see Figure 6.2). One apparent trend is for site assemblages to become smaller through time (see Figure 6. ). Although subject to sample size constraints, this trend may reflect an increased use of metal tools in the historic period.

## Assemblage Diversity

The assemblage size data presented in Figures 6.1 and 6.2 are one reflection of diversity. Diversity also was examined by comparing assemblage content data from the thirty-seven sites. Assemblage diversity is obvious in the relative frequency of ground stone implements, flaked stone tools, and debitage. Considerable variability among sites of each time period is evident in the relative occurrence of the three lithic artifact classes (see Figure 6.1). Although debitage is

typically the dominant lithic artifact class, notable exceptions occur in each time period where stone tools outnumber debitage (LA 59954, LA 61838, and LA 80854). Similarly, flaked stone tools normally outnumber ground stone artifacts. There are, however, eight sites (22 percent) where ground stone is the dominant tool class

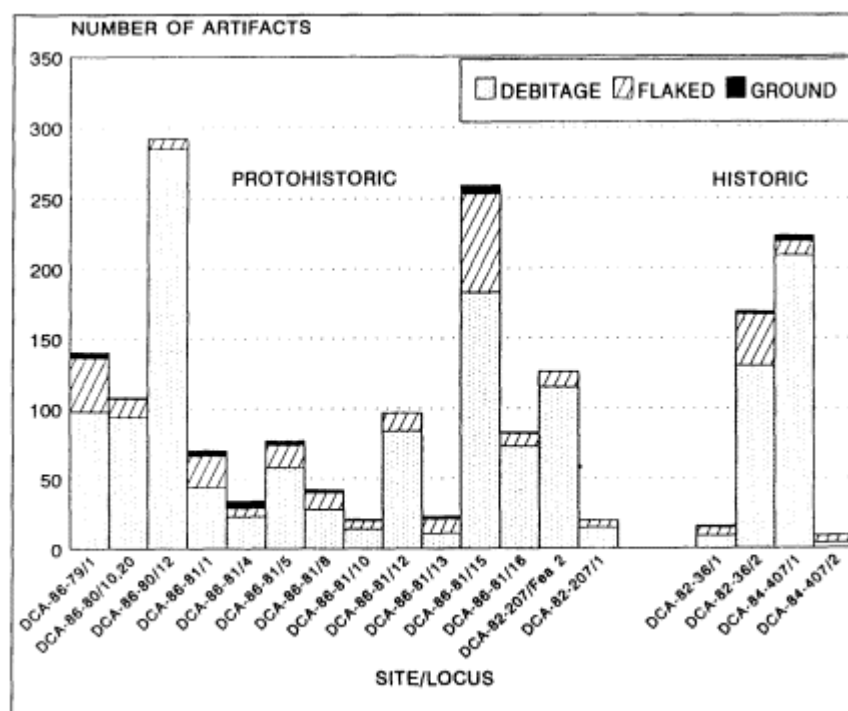


Figure 6.2.

Protohistoric and early historic intrasite loci lithic assemblage size variability at sites in the La Plata Valley, New Mexico.

and four instances (11 percent) where ground and flaked stone tools are equally represented. Examples occur in each of the time periods. Variability in the relative frequency of the three artifact classes is also evident in the intrasite sample for both the protohistoric and historic periods (see Figure 6.2). Although debitage is generally the dominant artifact class, there are two loci (10.5 percent), one protohistoric and one historic, where stone tools outnumber flake debris.

The relative frequency of specific artifact types among the protohistoric and early historic sites is another measure of assemblage diversity. Figure 6.3 illustrates the geographic variability of percentages of different flaked stone artifact types in the sampled sites. The data are presumably

skewed by variability in the lithic analysts' expertise, theoretical orientations, methods, and perceptions of stone artifact classes. Nonetheless, the data set is considered a good first approximation of stone tool variability at protohistoric and early historic sites. Although the general artifact groups illustrated in Figure 6.3 mask differences in the occurrence of specific artifact types, the site assemblages exhibit considerable variation

in the relative proportions of tool types (Kearns 1994; 1995). This variability in artifact type crosscuts time periods and geographic districts.

The variability evident in lithic artifact presence and frequency is not unexpected and should, for all three time periods, reflect the differential placement of the individual site or locus in a broader settlement system. In other words, different tools will be used in different frequencies, depending on specific site functions (Marshall 1985:193). The variability in site assemblages was undoubtedly also conditioned by access to local materials (Andrefsky 1994) and the differential performance of tasks requiring tools that occupied different roles in the technological organization of the tool kit. Specifically, access to suitable stone and the requirements for personal or curated gear, situational or expedient gear, and site furniture certainly changed with the placement of the individual site in the settlement system (Binford 1977, 1979). Similarly, intrasite loci variability may reflect differential, but coterminous, use of space and structuring of activities within a site, diachronic use of the general locale for similar or different purposes, or both (Binford 1980).

Assemblage diversity was also evaluated by comparing the relative frequency of lithic raw materials at the sites (Figure 6.4). The complex geology of the La Plata Valley provides abundant useable lithic materials. Pebbles, cobbles, and boulders of andesite, basalt, siltstone, sandstone, and quartzitic sandstone are common in Quaternary terraces and in exposed Tertiary

and Cretaceous bedrock deposits, primarily the Nacimiento, Ojo Alamo Sandstone, and Animas formations. In addition, chert and quartzite pebbles and cobbles are locally abundant in conglomerates and lag gravels, but chalcedony and petrified wood are rare. Sandstone and shale are also present in the Upper Cretaceous formations exposed along the Hogback Monocline and mesas west of the valley. Silicified wood is available in a few localized deposits and is typically mustard green or pale speckled yellow.

An initial assessment of the assemblages from three multiloci La Plata Valley sites (Kearns 1988b) indicated that silicified wood, chert, quartzite, and siltstone were the most common materials with varied proportions of chalcedony, quartzitic sandstone (or orthoquartzite), and obsidian also present. Although present, the more coarse-grained quartzitic sandstone and siltstone, nonvitreous igneous, and sandstone materials were poorly represented. The data were, however, equivocal and, beyond a predilection for the more siliceous or cryptocrystalline materials, no distinctive raw material preference or selection was noted. There are, however, evident differences when the intrasite loci data are combined and compared with data from ten other ALP sites (Kearns 1994, 1995). Although vari-



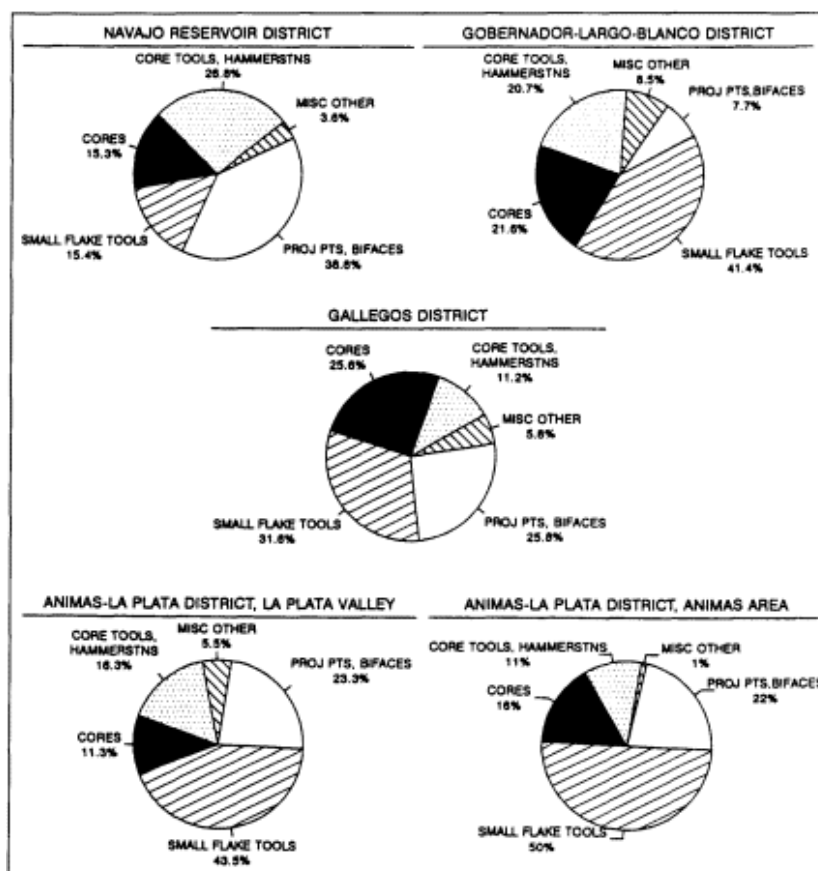


Figure 6.3.

Relative proportions of protohistoric and early historic flaked stone tool classes by geographic district in northwest New Mexico.

ability is evident in the relative proportions of lithic materials used in each time period, silicified wood, quartzite, chert, and siltstone were generally the materials most often used by the protohistoric and early historic period occupants of the area. The La Plata Valley data indicate a consistent use of the locally abundant gravels including chert, siltstone, quartzite, and other metamorphic materials. The silicified wood and chalcedony are potential nonlocal materials possibly imported from farther south. Except for the single aceramic site, obsidian occurs in all the sample site assemblages and was certainly an import, probably from the Jemez Mountains.

The sites in the ALP sample from east of the Animas River are

all characterized by high proportions of quartzite and chert.  
There is vari-

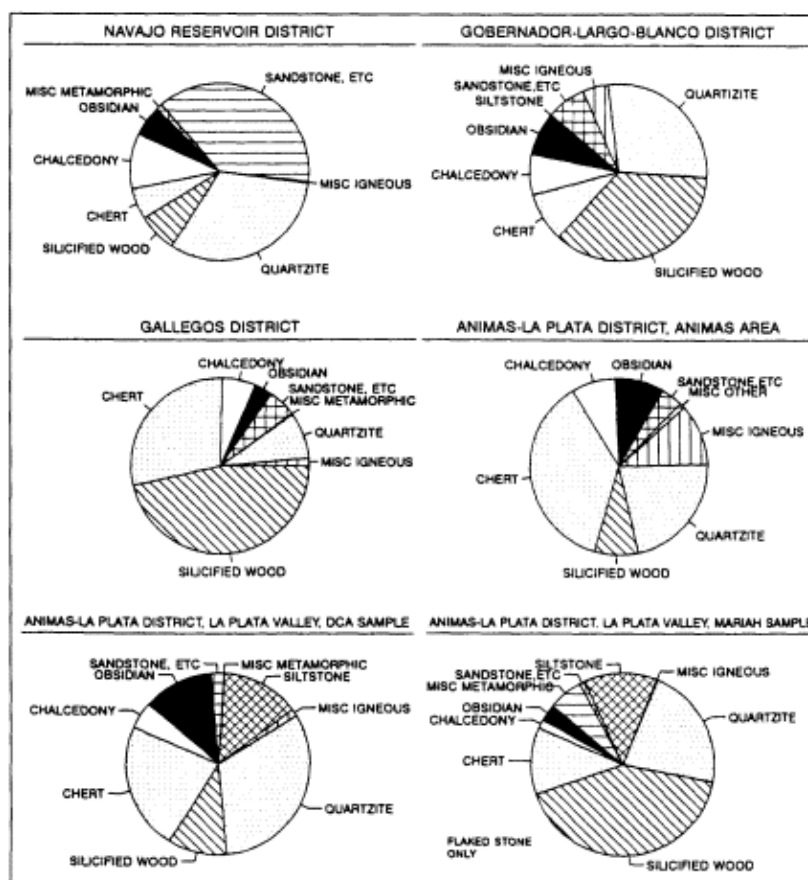


Figure 6.4.

Relative proportions of lithic materials at protohistoric and early historic sites in northwest New Mexico.

ability among the three protohistoric sites, six indeterminant protohistoric-historic, and two early historic sites, however, in the proportions of chalcedony, silicified wood, and obsidian along with miscellaneous igneous and sedimentary materials. This variability is evident both within and between the time periods.

Tertiary age Nacimiento and San Jose formations characterize the Animas region and locally available lithic resources include outcrops of sandstone, shale, and quartzitic sandstone or orthoquartzite. Quartzite, chert, chalcedony, and petrified wood are also available in weakly cemented conglomerates, and as

float or lag gravels. The petrified wood is typically grainy, not siliceous. In addition, the Animas River provides a

variety of igneous, metamorphic, and sedimentary materials including andesite, diorite, quartzite, sandstone, and siltstone. The assemblages from this area generally reflect reliance on the local materials. The silicified wood, however, is nonlocal, and the obsidian is an exotic originating primarily in the Jemez Mountains.

Silicified wood and chert are the predominant materials in the protohistoric and early historic assemblages from the Gallegos District (see Figure 6.4). Quartzite, sandstone, chalcedony, and obsidian also occur in variable proportions in assemblages from both time periods. Miscellaneous igneous and metamorphic materials and orthoquartzite, however, occur in greater proportions in the protohistoric assemblages. The terrace gravels along the San Juan River provide an abundant variety of igneous, metamorphic, and sedimentary materials in the form of waterworn boulders, cobbles, and pebbles. Sandstone is available from Cretaceous bedrock exposures and as float material. Quartzite, chert, and silicified wood are common in lag gravel deposits and in Cretaceous sedimentary deposits in the northern San Juan Basin south of the river and west of Largo and Blanco Canyons. Obsidian, present in protohistoric and early historic assemblages, is the only obvious exotic, and most probably came from Jemez Mountain sources.

Lithic material use varied significantly in the GLB and Navajo Reservoir Districts (see Figure 6.4). The aceramic site (SJC-186) assemblage is predominantly silicified wood with some quartzite and sandstone, less

chalcedony and chert, and no obsidian or orthoquartzite. Orthoquartzite and silicified wood are the predominant materials at the protohistoric site LA 38946. Chert, chalcedony, and quartzite are present in smaller quantities, and obsidian, sandstone and miscellaneous igneous materials occur in low proportions. The indeterminant protohistoric-historic sites (SJC-1320, SJC-1321, SJC-1322, LA 38949) exhibit varied material use. Quartzite is the dominant material and obsidian is relatively common at the three sites located on Manzanares Mesa (Bearden 1987). Chert, silicified wood, chalcedony, sandstone, and miscellaneous sedimentary materials were present at all three sites, but miscellaneous igneous materials occurred at only two. In contrast, the assemblage at LA 38949 south of Blanco Canyon was dominated by silicified wood and some sandstone, but only minor proportions of quartzite, orthoquartzite, chert, chalcedony, and obsidian were present. Silicified wood and chert were the most common materials at the multicomponent protohistoric and early historic site LA 38951. Chalcedony was also present in lesser proportions, and smaller amounts of quartzite, orthoquartzite, sandstone, siltstone, and obsidian were recovered.

The geologic bedrock present in the GLB District generally duplicates the formations present in the Animas River area of the ALP District and in the Navajo Reservoir District. In addition, a variety of igneous, sedimentary, and metamorphic materials are available as boulders, cobbles, and pebbles from the Quaternary terraces of the San Juan River. Although Ford (1979:9) and Marshall (1985:92) identify silicified wood as locally available in the GLB, my own reconnaissance and discussions with archaeologists familiar with the region indicate that silicified wood is scarce. Silicified wood is, however, commonly noted west of the district in the central and western San Juan Basin. Closer access to this silicified wood source area is reflected in greater proportions in site assemblages in the western portion of the GLB District. Obsidian occurs in both protohistoric and historic contexts in the district, and the Jemez Mountains are the probable source area. Pedernal chert from the northern end of the Jemez Mountains is specifically identified in the collections from LA 38946 and LA 38951 (Marshall 1985).

Lithic material availability in the Navajo Reservoir District is generally similar to the GLB District. The two mid-seventeenth-century sites in the Navajo Reservoir District (LA 72834, LA 80854) have similar lithic materials but in varied proportions. Sandstone and quartzite were relatively common at both sites and silicified wood occurred in roughly similar proportions. The relative percentages of chalcedony, obsidian, and chert, however, varied between the two sites, and LA 80845 produced materials not recovered at LA 72834.

While use of local materials is evident at both sites, the silicified wood is nonlocal and the obsidian is a distinct exotic originating in the Jemez Mountains.

Although the use of local materials is reflected in the site sample from each district, there is variability and also, in a general sense, some continuity in material use among the districts. Whereas silicified wood, chert, and quartzite are generally common in assemblages from all areas, the relative proportions vary, as do the presence and relative proportions of the other, less common materials (see Figure 6.4). Obsidian represents a repetitive exotic in each district during both protohistoric and early historic periods.

Although lithic assemblage data from pueblito sites are limited, Marshall (1991) provides some information on lithic materials recorded during surveys around nine pueblitos. Quartzite, including orthoquartzite, is locally available and is the dominant raw material in the assemblages (Figure 6.5). Sandstone, and possibly some chert, was obtained locally. Other chert, however, is identified as Washington Pass (or Narbona) chert obtained from the Chuska Mountains. Silicified wood was probably



collected in the central San Juan Basin to the west. Some chalcedony may have been procured locally from the Nacimient Formation, but some may be Pedernal chert from the Jemez Mountains. Obsidian is certainly an exotic, and most was identified as Jemez area material. Although the occurrence and relative proportions varied among the pueblito communities, the general pattern of lithic raw-material use is similar to that in the Navajo Reservoir and GLB protohistoric and historic site sample.

Variability in lithic material presence and proportion should reflect the geographic placement of the individual site or locus vis-à-vis the settlement system, access to suitable lithic materials, and variable tool requirements. The use of, and relative frequency of, different lithic materials should also reflect changes in the technological organization of the tool kit. Personal gear, such as projectile points, should exhibit maximum design comparability between function and raw material (Binford 1979: 267), and was often manufactured from exotic or nonlocal materials. Most projectile points found on protohistoric and early historic sites were manufactured from nonlocal obsidian. Expedient situational tools are conditioned by raw material availability, with little investment in design or tool production (Binford 1979:267), and are made of both local materials and nonlocal curated materials. This is reflected in the assemblages by the use of chert, quartzite, and other local materials along with silicified wood, obsidian, Pedernal chert, and other nonlocal materials for utilized flakes and informal retouched flake tools.

Site furniture consists of items permanently left at a site and is part of a curational strategy involving anticipatory procurement, maintenance, and recycling (Binford 1977:339; 1979:263-64). Although availability of suitable stone may necessitate use of nonlocal materials (Binford 1979:256-57), site furniture often consists of larger items procured from local sources. This is evidenced in the use, by the protohistoric and early historic population, of local sandstone for milling equipment and readily procured cobbles for handstones and core tools.

### Characteristic Aspects of Early Navajo Lithic Technology

The following section addresses hypotheses 3 through 5 and presents data pertinent to three issues: the presence of common denominators in the protohistoric and early historic lithic assemblages; continuity between protohistoric and early historic assemblages and among assemblages from the Dinétah and adjacent regions; and change in Navajo lithic technology through time. The diversity evident in the protohistoric and early historic

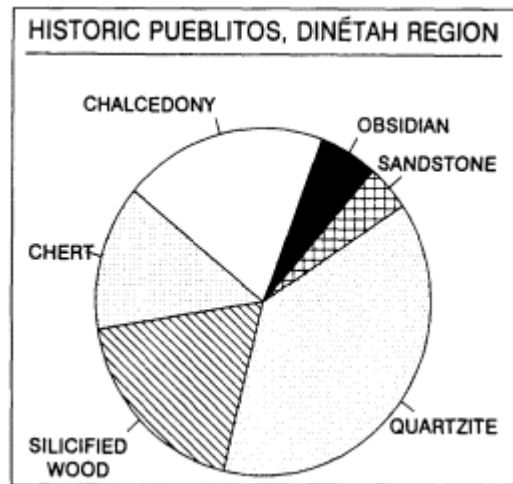


Figure 6.5.

Variability in pueblito site lithic raw materials.

assemblages suggests, at first glance, that there are few common denominators that characterize lithic technology for these periods. Closer examination of materials and individual tool types, however, indicates that there are distinctive repetitive attributes that typify these assemblages. There are also characteristic attributes of the assemblages and aspects of material selection that are common to sites assigned to the Gobernador phase and sites assigned to the Diné'tah phase, not only in the traditional Diné'tah region but also in the other districts. This continuity suggests that most of the protohistoric sites in northwest New Mexico currently assigned to the Diné'tah phase are the material remains of Athapaskan groups. Finally, there are changes in the presence and relative proportions of stone artifacts between the protohistoric and historic periods that are the apparent result of acculturation and the interaction between the early Athapaskan inhabitants of northwest New Mexico and Pueblo and Hispanic cultures.

### *Early Investigations at Navajo Sites*

Several investigations at undeniably Navajo sites of the historic period provide data relative to assessing continuity in lithic technological strategies. Kidder (1920), using data collected at pueblito sites in Gobernador and Largo Canyons, provided the first description of historic period Gobernador phase Navajo stone artifacts. The brief description (Kidder

1920:327) simply listed arrowpoints, scrapers, and drills and was primarily intended to support an argument for the antiquity of the ruins. Morris investigated seventeen Gobernador phase Navajo sites, primarily pueblitos, in the Gobernador District (Carlson 1965), but scant data are available for the stone artifacts from these sites. Those noted by Carlson include flat slab metates, manos, six rectangular sandstone shaft smoothers, a comal, a hafted side-notched obsidian arrowpoint, a small corner-notched chalcedony projectile point, a lignite bead, a reworked broken gypsum elbow pipe with carved relief, and a ground stone gypsum tube mouthpiece (similar to cloud blower pipes) associated with a ceremonial mask.

Farmer (1942) provides more detailed descriptions of the stone artifact assemblages associated with Navajo sites in the upper Blanco and Largo Canyon region. Although most of the sites were fortified pueblitos, temporary camps also were present. The chronological placement of the temporary camp sites is uncertain, but the pueblitos certainly date to the eighteenth century.

Farmer noted the presence of milling equipment, including oval and rectangular manos and slab and trough metates. He observed that the trough type metate "seemed to be more common at camp sites" (1942:71) and described the rectangular mano as a "two-handed" type (1942:72); presumably the oval form represents one-hand handstones. Other ground stone items included a shaft polisher or straightener and sandstone shaft smoothers. The shaft smoothers were described as "the type used in pairs and ... found quite commonly

on sites of the Great Plains” (1942:72). Cores were common and include choppers, unmodified cobble hammerstones, and angular hammerstones (pecking stones). He described two scraper types including a single snub-nosed end scraper and a more common form identified as a primary percussion flake with a little secondary flaking on one edge; he noted that the latter form may also have been used for cutting. Although no illustrations were provided, thirty-two projectile points averaging 3.5 cm long and representing fifteen different styles were documented. Five of these were unnotched triangular forms, six were triangular side-notched styles, four were triangular side-notched concave base forms, and thirteen were described as stemmed with either contracting or expanding stems; four were unclassified (1942). The paucity of snub-nosed end scrapers and apparent lack of biface knives and gravers are attributes that, for reasons addressed later, are considered more indicative of the historic rather than protohistoric Navajo stone tool assemblage.

Sandstone was the primary material used for ground stone tools with rare use of granite and an unidentified gray rock. Projectile point raw ma-

terials were the only flaked stone tool materials identified and include, in the order presented by Farmer (1942:72), obsidian, chert, chalcedony, and petrified wood. The obsidian is certainly an import; the petrified (silicified) wood and chalcedony may be nonlocal but, with the chert, could be local.

Keur (1944) describes stone artifacts associated with a possible seventeenth-century hogan as a metate and accompanying elongate mano, two other complete and three fragmentary manos, a pigment grinding outfit, and seven small smoothed and battered stones (Keur 1944:76-77). Other, probably later, artifacts include eighty-one manos (predominantly long, flat two-hand types), three metates, comals from five sites, thirty-eight small arrowpoints and three larger dart points, twelve scrapers (both side and end varieties), sixty-seven knives, three drills, sixty-five hammerstones or choppers, ten faceted pebbles identified as pot polishers, seven elongate single-groove shaft smoothers, one large core, one maul, one grooved axe, and one pendant (1944:79-81). Flaked stone materials were chiefly chalcedony, quartzite, and obsidian, with a few chert, jasper, and slate items. Ground stone materials were mostly sandstone; scoria and diorite were not uncommon; and quartzite, chert, and mica schist were also represented (Keur 1944:80). The latter materials may be associated with hammerstones or choppers which Keur included in the ground stone category. The projectile points exhibited considerable diversity in form and material, and the “stone artifacts show the usual heterogeneity in material, workmanship, and form” (Keur 1944:85).

During her work at Big Bead Mesa, Keur (1941:71) observed that “most of the stone ... artifacts are crudely made and so diversified in form as to be without distinction.” She suggested that artifacts had been collected from abandoned pueblos or obtained “from other peoples actually met” and proposed that “tools of metal were in use at this period; but ... were carried off when the site was abandoned” (1941:71). She noted that percussion and pressure flaking and grinding were aspects of the stone tool technology and identified flake debris and cores of quartzite, chalcedony, and obsidian along with a few examples of chert, petrified wood, and quartz. Flaked stone tools identified included marginally retouched flake scrapers, large ovate side scrapers, small elongated side scrapers, crude snub-nose end scrapers, three complete and one fragmentary knife, a flake with regular notches along one side and end, and battered choppers (angular hammerstones?) (Keur 1941:56, 60). The small arrow-size projectile points are “not at all distinctive in style, but show a wide range of variation,” and she suggested that they may have been collected rather than manufactured by the Navajo inhabitants (1941:58). The projectile points



included unnotched triangular straight and concave base, side-notched straight base, side- and basal-notched, and corner-notched expanding and contracting stem styles. Battered nodule, pebble, and concretion hammerstones were also noted. Flaked raw materials included quartz, quartzite, obsidian, chalcedony, and chert along with agate, jasper, basalt, and sandstone. Ground stone artifacts included round or rectangular one-hand manos, two-hand manos, rare metates, neatly shaped rectangular arrow smoothers, awl sharpeners(?), rare grooved axes and mauls, rubbing stones, and polished pebbles (1941:60-62). In addition, sandstone concretions that may have functioned as ceremonial items were collected.

Investigations in the Chaco Canyon region included a reconnaissance by Malcolm (1939) and research on Chacra Mesa by Vivian (1960). Malcolm (1939:19) identified only one stone artifact, a grooved arrow shaft straightener associated with a Navajo burial. Vivian (1960:144) noted that the stone artifacts were “crude and showed poor workmanship.” He observed that the projectile points were similar to those from Big Bead Mesa (1960:145) and identified small unstemmed leaf and triangular, side-notched, and corner-notched styles. Two scraper types, a long laterally retouched flake, and smaller, thick rounded forms flaked on one or several sides were described along with triangular convex-base biface knives, T-shaped drills, cortex-backed and macroflake choppers, battered nodule hammerstones, and cores (1960:145-48). Chert, obsidian, and quartzite were identified as the predominant flaked and battered stone tool materials along with jasper, petrified wood,

chalcedony, and sandstone. Ground stone artifacts included sandstone and vesicular basalt metates, one-hand and two-hand manos, sandstone pot lids, and a ground hornstone object; concretions and fossils, although rare, were also identified in the assemblages (1960:147-48).

Dittert et al. (1961:246) summarized the Dinétah phase Navajo lithic artifacts documented during the reservoir survey as shallow basin metates with one-hand manos(?), corner- and side-notched, expanding stem projectile points, ovate and palmate blades, utilized flake knives, side-notched axes, side and end scrapers, pointed gravers, unifacial choppers, full-groove mauls, and little use of trade stone. Elongate flake knives were considered a Dinétah phase artifact associated with initial Pueblo contact. They noted that the Gobernador phase assemblages contained all of the Dinétah phase items in addition to slab metates and two-hand manos, oval single-groove arrow-shaft smoothers, gilsonite pendants, and trade stone material from the Abiquiu area (1961:246). Hester and Shiner documented exotic lithics, including obsidian and Pedernal chert from the Jemez-Abiquiu district and copper pigments from the Ojo Caliente dis-

trict, in Dinétah phase assemblages (1963:76). They also noted that the Gobernador phase was characterized by the addition of slab manos and metates and elongate flake knives struck from prepared cores (1963:77).

Artifacts recovered from the Navajo site excavations include retouched flake knives, utilized flake scrapers, notched-flake saws, retouched flake drills, gravers, cobble choppers, battered cobble and elongate pebble hammerstones, flaked hammerstones, projectile points, blades (biface knives), manos, metates, grinding palettes, polishing stones, and shaft abraders and straighteners (1963:74-76). Although Hester and Shiner (1963:74) stated that it was not possible to describe a typical Navajo projectile point, they “believed that the Navajos did make a small, oval unstemmed form ... not found in Pueblo sites, and could represent the one form actually produced by Navajos.” The blades (biface knives) were symmetrical and “almost impossible to distinguish ... those made by Navajos and those collected from Pueblo sites” (1963:74). Hester summarized the available data on early Navajo stone artifacts, and some of his observations, including the absence of gravers, elongate flake knives, single groove shaft straighteners, and little use of trade stone material during the Dinétah phase (1962a:63-64), are, as will be shown, inconsistent with current data.

### Characteristics of Ute Lithic Technology

Knowledge of protohistoric and historic Ute lithic technology provides a base for comparison with lithic artifact assemblages identified as Navajo. There are, however, few excavated sites in the San Juan River

region specifically identified as protohistoric or early historic Ute (Eddy et al. 1984), and the ethnic identity of at least two of these is equivocal. It is necessary, therefore, to also examine Ute assemblages from west-central Colorado and other areas as well.

There are currently only three excavated sites in Southwestern Colorado that are identified as protohistoric or early historic Ute. The most frequently cited example is Structure 5 at Talus Village, a predominantly Basketmaker II site north of Durango. Dean (1969) reexamined the tree-ring data from Structure 5 and concluded that dates in the fifteenth, sixteenth, and possibly eighteenth centuries invalidated the original Basketmaker III period identification of E. H. Morris and Burgh (1954:21-23). Dean (1969:35) argued that the architectural aspects of Structure 5 were more indicative of an early historic period Southern Ute brush shelter than a Puebloan shelter, Navajo hogan, or Jicarilla Apache conical shade. In addition to two plain potsherds identified as Basket-

maker III (E. H. Morris and Burgh 1954:22), the Structure 5 assemblage included a small triangular side-notched point that Dean (1969:36) identified as a typical “Desert side-notched” point and considered as more indicative of Ute than Navajo origin. The other lithic artifacts included a stone drill, small broken biface or point tip, arrow-shaft smoother, tubular stone pipe (identified as a pipe blank by Morris and Burgh [1954:Figure 106]), and a flat slab metate. Dean (1969:36) commented that the “other artifacts from Structure 5 are not notably diagnostic of any time period or aboriginal group.” Although he stated that the evidence most strongly supported the hypothesis of a Southern Ute (or their undifferentiated Shoshonean ancestors) origin for Structure 5, Dean (1969:37) acknowledged that such an origin had not been conclusively demonstrated. “Further tests of the idea of a Southern Ute origin for Structure 5 can be made only on the basis of additional archaeological field research” (1969:37).

Information from protohistoric sites with Navajo ceramics in northwest New Mexico and data on Ute wickiups published since 1969 renders Southern Ute affiliation of Structure 5 equivocal. The structure was roughly oval, 5.9 m by 4.3 m, characterized by a conical superstructure with at least “five relatively large timbers” and possibly “sealed against the weather by an outer coating of clay” (E. H. Morris and Burgh 1954:21-22). Dean (1969:32, 35) argued that the superstructure probably could not have supported a heavy dirt covering, but was covered with brush and banked with dirt. Although described as a very shallow

excavation, Structure 5 was apparently excavated at least 60 cm into the hill slope (E. H. Morris and Burgh 1954:Figure 10). Interior features included a clay-rimmed hearth, slab-lined bin, and a short raised clay floor ridge.

Buckles's data (1971:1252-65) from forty Ute wickiups on the Uncompahgre Plateau in west-central Colorado indicate that none were as large as Structure 5, nor did they evidence an earthen covering, exhibit excavated floors, or contain cists or milling bins. The hearths in Buckles's sample were typically unlined, shallow basin pits or informal surface burns. Buckles did, however, concur with Dean that "on the basis of the available information" (1971:1264), Structure 5 was most similar to Ute structures.

In contrast, structures associated with Navajo ceramics in northwest New Mexico varied from small to large, had light pole to heavy timber frames, were brush- or earth-covered, did not all possess a covered entryway, often exhibited shallow excavated floors, and sometimes contained slab-lined bins, clay-lined hearths, and raised clay floor ridges (Brown et

al. 1992; Carlson 1965; Ford 1979; Hester 1962a; Hester and Shiner 1963; Honeycutt and Fetterman 1994; Hovezak and Sesler 1995; Marshall 1985). Historic Navajo conical forked-pole shelters and hogans were not always earth-covered (Jett and Spencer 1981:36, 37; Kluckholm et al. 1971:146) and often had excavated floors (Jett and Spencer 1981:56). The stone artifact assemblage associated with Structure 5 is not inconsistent with protohistoric and early historic Navajo sites in Dinétah and the surrounding region. A Navajo origin can be considered for Structure 5, particularly if the tentative eighteenth-century tree-ring date (Dean 1969:34) is discounted.

Another southwest Colorado site, 5LP353, located roughly 3.5 miles south of Durango, has been considered a possible Ute habitation. This was a forked-stick structure that Heikes (1979:1) identified as Ute and assigned to the historic period, ca. A.D. 1775-1875, based on the architecture and associated ceramics. Stone artifacts included a milling slab, five hand stones, one two-hand mano, a probable cist cover, two polished pebbles, one shaped sandstone object, five utilized flake scrapers, two other utilized flakes, two small hammerstones (including at least one battered core), one biface knife fragment, gypsum (selenite?) crystals, red and yellow ochre, and forty-eight flakes. Materials were predominantly chert and quartzite with one example each of chalcedony and obsidian.

Ute affiliation with 5LP353 is debatable. Although Heikes (1979) argued that the structure was more typically Ute than Navajo, the remains are not

dissimilar to historic and ethnographic forked-stick hogans. Heikes (1979) observed that the ceramics recovered from the site (three partial vessels) were not made by Utes and were probably Dinétah Utility or Dinétah Filleted (Dinétah Gray) Navajo wares. The stone artifacts are similar to items found on Navajo sites, and the presence of obsidian and chalcedony is consistent with exotic materials recovered from historic Navajo sites in Dinétah. In the absence of any additional information, I believe the most parsimonious interpretation is that 5LP353 represents an early to mid-eighteenth-century Navajo site.

A possible single component Ute site (Lone Aspen Camp, 5DL444) was excavated by the Dolores Archaeological Program (Kane 1986; Kleidon 1984). This was an open camp with a possible wickiup and a radiocarbon determination of  $290 \pm 50$  BP (uncalibrated). Associated artifacts include debitage, several utilized flakes, several unifacially flaked tools, one thin biface, one grooved abrading/grinding stone, and a metate fragment (Kane 1986). This probable Ute assemblage resembles assemblages recovered from hunter-gatherer sites across the Colorado Plateau and is generally undiagnostic.



Finally, Winter (1986a) assigned Ute affiliation to a series of sites in the Ridges Basin area south of Durango. None of these sites were excavated, however, and the cultural identification was based on the presence of Desert Side-notched projectile points, worked glass implements, and acceptance of Spanish documents that identified the area north of the San Juan River as Ute territory in the protohistoric and early historic periods. Ute affiliation with the archaeological remains in the Ridges Basin area is equivocal.

Although Desert Side-notched points are often accepted to be of Shoshonean origin, small triangular side-notched arrowpoints with concave or notched bases occur throughout much of the western United States, and are more appropriately considered a horizon style for the late prehistoric, protohistoric, and early historic periods (Buckles 1988:222). This point style was also used by early Navajo groups. Winter (1986a:207) identifies retouched glass artifacts at two sites, but no mention is made of associated stone artifacts. It is important to note, however, that modified glass artifacts are not typical elements in protohistoric and early historic Navajo assemblages. The sites are assumed to be Ute and probably date to the late nineteenth century (Winter 1986a:210), postdating the temporal interval addressed in this paper.

### *Ute Lithic Artifacts*

Because of the paucity of documented Ute sites in Southwestern Colorado and northwestern New Mexico, it is necessary to examine Shoshonean assemblages from west-central Colorado (Buckles 1971; A. D. Reed

1988), Utah (Stewart 1942), and Wyoming (Frison 1978) for comparative material culture items.

Small triangular side-notched projectile points may be the most distinctive Ute flaked stone tool; other flaked stone tools, with the exception of knives and rare, small end scrapers, are quite crude and probably not diagnostic. Cottonwood Triangular style projectile points are the most common point type recovered from Escalante phase (A.D. 1500-1800) contexts, but a single small Desert Side-notched style point was recovered as well (Buckles 1971:1252). Similar points are also associated with the Uncompahgre Plateau Ute (Cassells 1983:Figure 10-4). Biface knives, projectile points, flake and blade cutting tools, cores, end scrapers, and side scrapers are common (Buckles 1971:Figure 169). Other, less frequent, stone tools include borers, backed flakes and blades, adze-shaped flake tools, concave flake scrapers, gravers, chopping tools, hammerstones, and scraper planes (Buckles 1971:Figure 169). Although not numerically common, the adze-shaped flake tools may be a distinctive trait of the Escalante

phase, but are also present in earlier assemblages (Buckles 1971:1233). Prepared platform (predominantly unifacial) and prismatic cores are common Escalante phase artifacts, but multifaceted cores are more characteristic of the earlier phases (Buckles 1971:1237). Milling equipment, including handstones and millingstones, is included in the Escalante phase assemblage; manos, metates, shaft smoothers, and shaft straighteners are absent (Buckles 1971:454, Figure 169). Escalante phase artifacts share continuity with earlier phases, but Buckles was unable to identify a distinctive Ute lithic artifact assemblage, and observed that “the ability to define material culture from these archaeological sites with ethnographically or historically documented Ute material culture is almost nil” (1971:1251).

A. D. Reed identified Desert Side-notched projectile points, Cottonwood Triangular projectile points, and Shoshonean knives as diagnostic Ute artifacts; the point styles, however, have a broad geographic distribution and should be used with caution when determining cultural affiliation (Reed 1988:83-84). Other lithic artifacts commonly found on Ute sites in both eastern Utah and western Colorado, including debitage, cores, bifaces, scrapers, handstones, and slab millingstones, are of little value in determining Ute affiliation (1988:81).

Stewart identified stone arrowpoints, knives, drills, grooved stone axes, and grinding stones as tools used by Utes. Stewart’s informants, however, noted that these items were collected from prehistoric sites and

not manufactured by Utes. Although Stewart (1942:264, 268) identifies arrow-shaft smoothers as a Southern Ute artifact type, they are not commonly associated with protohistoric or historic Ute assemblages west of the Rocky Mountains. Shaft smoothers are commonly found on protohistoric and early historic sites in northwest New Mexico.

Biface knives are typically associated with hunting-oriented economies and are a common Ute artifact type. The Shoshonean knife is a distinctive biface form characterized by a relatively wide base and tapering blade with a distinctive shoulder separating the base and blade (Bradley et al. 1986:Figure 22; Frison 1978:80; A. D. Reed 1988:Figure 1d). They are generally considered a diagnostic Shoshonean artifact type (Frison 1978:80); Buckles (1988:222), however, argues that they have a multiethnic distribution. Although bifacial knives are common on Navajo sites, except for one example from a Dinétah phase Navajo site (LA 16151) south of the San Juan River (Elyea 1992), Shoshonean-style knives have not been found in protohistoric or early historic assemblages from northwest New Mexico.

Desert Side-notched and Cottonwood Triangular projectile points are the most commonly cited diagnostic Ute lithic artifacts (Baker 1988; Eddy

et al. 1984; Gordon et al. 1983; La Point 1987; A. D. Reed 1988; Winter 1986a). These point styles are not solely a Ute point type, but are more appropriately considered late prehistoric-protohistoric horizon styles used by different cultures throughout the western United States (Bell 1958; Heizer and Hester 1978; Holmer 1986; Kehoe 1966; Suhm and Jelks 1962; D. H. Thomas 1981). They are the most common point types recovered from protohistoric and early historic sites in New Mexico and are also considered a typical early Navajo point type.

In summary, many artifacts documented in Ute assemblages are generic types typical of hunter-gatherer archaeological complexes on the Colorado Plateau. Many Ute artifacts, such as bifaces and scrapers, are similar to those recovered from protohistoric and undeniably early historic Navajo sites, such as pueblitos. Distinct Ute lithic artifacts may include Shoshonean knives, adze-shaped flake tools, prepared-platform unifacial cores, and small end scrapers (Buckles 1971; A. D. Reed 1988). Adze-shaped flake tools and prepared-platform unifacial cores are either rare or have not been recognized in protohistoric and early historic assemblages in northwest New Mexico. Distinct artifacts that occur in protohistoric and early historic assemblages from northwest New Mexico that are rare or absent in Ute assemblages include small, multidirectionally flaked, exhausted core nuclei or microcores, gravers, shaft smoothers, manos, and metates.

Comparing Navajo and Ute Lithic Technologies

The presence of distinctly earlier artifact types on protohistoric and early historic sites characterizes both early Ute and early Navajo assemblages. Similar artifacts found in both types of assemblages include Desert Side-notched and Cottonwood Triangular projectile points, small end scrapers, cores, debitage, and milling equipment. There are, however, differences that can be used to differentiate the assemblages from one another in the San Juan area.

### *Lithic Material Selection*

Variability in lithic material use has been cited as a potential attribute for differentiating cultural or temporal periods in northwest New Mexico and elsewhere (Chapman 1977; Gomolak and Heinsch 1981; Laumbach 1980; Moore 1982; C. F. Schaafsma 1977; Vogler 1982). Elyea and Eschman (1985:246), however, note a number of instances where material selection appears to have been conditioned by local availability, not

cultural preference. Are there lithic materials that are diagnostic of protohistoric and early historic Navajo sites in northwest New Mexico?

It is apparent that beyond a preference for the more siliceous materials, the selection of lithic materials by the protohistoric and early historic inhabitants was not dictated by cultural preference. Generally, use of locally available materials characterizes the assemblages, but distinctive nonlocal and exotic materials were also exploited. Although the relative amount varies from site to site, obsidian is one repetitively occurring exotic material that is a distinctive early Navajo material of choice; it is frequently identified macroscopically and chemically as Obsidian Ridge, Cerro Rubio, or Polvadera obsidian from the Jemez Mountains (R. Hughes 1994; Jackson 1991; Marshall 1985, 1991; Michels 1988; Rollefson 1984a; Stevenson 1991). At least one obsidian artifact from Government Mountain, Arizona, has been recovered from an early Navajo context (R. Hughes 1994). The obsidian occurs commonly on both protohistoric and early historic Gobernador phase sites in all four districts.

Chalcedony also frequently occurs on both protohistoric and early historic sites (Kearns 1988b:171; Marshall 1991) and often co-occurs with obsidian. The chalcedony is sometimes identified as Pedernal chert or chalcedony, a lithic material obtained from the north end of the Jemez Mountains near the Polvadera obsidian source. Chalcedony also occurs as lag gravel and in silicified wood deposits in the Upper

San Juan River region, however. Some of this latter material is similar in appearance to the Pedernal source and specific identification is sometimes tenuous or not possible macroscopically. The co-occurrence of chalcedony and obsidian is significant vis-à-vis regional interaction or regional movement between San Juan River region populations and the Abiquiu-Jemez region. The repetitive occurrence of obsidian and chalcedony (Pedernal chert) on both protohistoric and early historic sites in all four districts suggests temporal and spatial continuity in exotic lithic material acquisition.

Silicified or chalcedonic wood is a common material type at many protohistoric and early historic sites in northwest New Mexico (Kearns 1994, 1995). This distinctive material is ubiquitous throughout much of the central San Juan Basin, however, and was commonly used by all the prehistoric inhabitants of the region (Chapman 1977; Laumbach 1980; Moore 1982). Therefore, despite its use as a material of choice by protohistoric and early historic groups, it has little utility for distinguishing Navajo assemblages from other archaeological assemblages. High quality silicified wood is not common in the Navajo Reservoir, GLB, and eastern ALP districts or, except for distinctive mustard green and speckled pale



yellow varieties, in the La Plata Valley. Its presence on sites in those areas is an indicator of nonlocal lithic procurement potentially associated with the central San Juan Basin. If Utes were responsible for the protohistoric sites north of the San Juan River, they were either traveling south to obtain much of their flaked stone material, or an alternate northern source of abundant high quality silicified wood must be identified.

### *Stone Tool Type*

The number of well-dated protohistoric and early historic loci at the DCA La Plata Mine sites (A. C. Reed et al. 1988) provided an opportunity to assess variability in stone tool type and design. The general variety of implements represented at the La Plata Mine sites was not distinctive, and similar artifacts occur at numerous sites from diverse temporal periods in the Upper San Juan region and across the Colorado Plateau (Kearns 1988b). A similar tool variety is also found on the protohistoric and early historic sites in the sample.

Much of the collective protohistoric and early historic (including Dinétah region Navajo) stone tool assemblage, therefore, is undiagnostic. Most of the tools recovered from protohistoric and early historic sites are not technically or stylistically distinct from tools recovered from a variety of temporal or cultural contexts throughout the Southwest. Many cores, hammerstones, chopping tools, miscellaneous large core tools, small retouched or utilized cutting or scraping tools, biface knives, drills, and milling implements found on protohistoric and early historic

sites are generic types indistinguishable from those recovered from Archaic or Anasazi sites.

One generally characteristic aspect of protohistoric and early historic tool kits, both Navajo and Ute, is the presence of earlier artifacts; such recycling has also been documented ethnographically (Kluckholm et al. 1971; Stewart 1942). If the protohistoric and early historic Navajo were collecting artifacts from archaeological sites, they presumably were also collecting lithic materials. Although the recycling behavior masks differences in the technical and stylistic distinctiveness of these assemblages, it is an observable aspect of the protohistoric and early historic lithic technology.

Are there lithic artifacts or attributes that evidence continuity between the protohistoric, early historic, and demonstrably early Navajo assemblages? Evidence from the DCA La Plata Mine assemblages, coupled with data from other sites throughout northwest New Mexico, indicates there are tool types and styles that exhibit continuity between protohis-

toric and early historic Navajo assemblages in Dinétah and among the four districts. These include distinctive projectile point styles, small multifaceted cores, elongate flake knives/scrapers, small hafted scrapers, gravers, bifaces, and shaft smoothers or straighteners, comals, and, possibly, carved stone pipes. None of these are exclusively Navajo, and some are found in Ute assemblages. The collective assemblage, however, exhibits temporal and spatial coherence and is arguably indicative of the presence of early historic Navajo groups and their protohistoric Athapaskan ancestors in the Dinétah and adjacent districts.

Some researchers have argued that projectile points recovered from early Navajo contexts are undiagnostic or that collections are so contaminated with earlier point types that meaningful comparison is fruitless (Farmer 1942:72; Hester and Shiner 1963:74). This is not a universal view, however, and others have noted that some point styles consistently appear on protohistoric and early historic sites (Kearns 1988b:322; A. D. Reed and Horn 1990:293; Winter and Hogan 1992:305). Marshall (1985:193) states that "one of the most distinctive elements of early Athabaskan [sic] lithic materials is the small side-notched projectile point."

Small side-notched triangular points with straight, concave, or notched bases and small unnotched triangular points are consistently reported from protohistoric and early historic contexts in northwest New Mexico (Ayers et al. 1993:101-3; Bearden 1987:148; Brown 1992:84-85; Brown et al. 1991:539,

557; Carlson 1965:36, 43; Dittert 1958a, 1958b; Dittert et al. 1961:242; Elyea 1992:41; Farmer 1942:73; Hancock et al. 1988:851-53; Hogan 1991:21; Honeycutt and Fetterman 1994; Kearns 1988b:231-35; Marshall 1985; A. D. Reed and Horn 1990:287; Rollefson 1984b; Vivian 1960:145-46). Stylistically similar artifacts are identified as Fresno points on the Great Plains (Bell 1958:44; Suhm and Jelks 1962:273) and Cottonwood Triangular points in the Great Basin (Heizer and Hester 1978; Holmer 1986; D. H. Thomas 1981). The small triangular side-notched concave-base style was the most common point type reported by Farmer (1942:73) in the upper Largo, by Elyea and Eschman (1985:253) from the Blanco and Largo Canyon area, by Honeycutt and Fetterman (1994) from the uplands east of the Animas River, and by Rollefson (1984b) on Gallegos Mesa. Collectively these points are stylistically identical to the Washita, Harrell, and Plains Side-notched point styles of the Great Plains (Bell 1958:30, 98; Kehoe 1966; Suhm and Jelks 1962:275) and the Sierran and general forms of Desert Side-notched points from the Great Basin (Heizer and Hester 1978; Holmer 1986; D. H. Thomas 1981). As such, these point types are more

appropriately considered horizon styles and not culturally diagnostic. Their common occurrence on demonstrably early historic Navajo sites is, however, indicative of their use by Navajos.

Small corner-notched and stemmed points also occur on protohistoric and early historic sites and may include specimens of Navajo manufacture (Farmer 1942:73; Hester and Shiner 1963:62; Hancock et al. 1988: 851-53; Honeycutt and Fetterman 1994; Keur 1944:Figure 4a; Marshall 1991:Figure 6D). These point styles, however, occur in the archaeological record as early as the Basketmaker III period (Moore 1981), also occur on Ute sites, and are not, by themselves, diagnostic Navajo types.

The small multidirectionally flaked exhausted-core nuclei or microcores recovered from the DCA La Plata Mine protohistoric sites may represent a potentially diagnostic early Navajo artifact (Kearns 1988b:247, 324). These are small (typically less than 4 cm in diameter) multiplatform or irregular cores manufactured from high-quality cryptocrystalline materials; they are characterized by an opportunistic reduction trajectory geared toward small flake production, and frequently show evidence of expedient use as scrapers, graters, or other tools. Cella et al. (1984: 6-229) note that over 50 percent of the 257 cores from LA 17483, an early historic site on Gallegos Mesa, were multidirectional; and, significantly, “the main distinguishing feature of the cores is their size; the majority are quite small and over 40% are exhausted.” Brown (1992:81) also notes the presence of a very

small (22 x 21 x 13 mm) bipolar core from a mid-seventeenth-century site with Gobernador Polychrome (LA 80854) in the Navajo Reservoir District. Although sparse, the available evidence suggests continuity for this core type between the early historic and protohistoric periods. Similar core types have not been identified as characteristic of Ute assemblages.

Another potentially distinctive protohistoric and early historic Navajo stone tool is an elongated flake knife (or flake knife/scrapper). These are usually long narrow flakes or blades with unidirectional or, less frequently, bidirectional marginal retouch along one long lateral edge. Although Buckles (1971:Figure 169) listed backed flakes and blades as elements of the Ute assemblage, they were infrequent and are not commonly identified as a Ute artifact type. A number of these artifacts were recovered from protohistoric contexts during the La Plata Mine excavations (Kearns 1988b:219-29), and examples have been documented at other protohistoric and early historic Navajo sites in northwest New Mexico (Dittert et al. 1961; Elyea 1992:Figure 5.1h; Hancock et al. 1988:815-18; Hester and Shiner 1963; Marshall 1985:92; Vivian 1960:145). Upper Largo and Blanco area scrapers described as “a pri-

mary percussion flake with a little secondary flaking on one edge ... [which] may also have been used for cutting” (Farmer 1942:72) may include the elongated flake knives. In the Navajo Reservoir Navajo assemblages, Dittert et al. (1961:244) observed that “another cultural pattern is the use of elongate flakes as tools and as blanks for tool manufacture,” although they suggested a Pueblo Refugee origin for the elongate flake artifacts. The recovery of this artifact type from both protohistoric sites with Dinétah Gray ceramics and early historic Navajo sites (including specimens manufactured from local materials) indicates a Navajo origin. The temporal and spatial distribution of this artifact style is indicative of continuity between the protohistoric and early historic Dinétah inhabitants and protohistoric and early historic inhabitants of the surrounding districts.

Small hafted scrapers or exhausted scraper slugs appear to be a characteristic protohistoric and early historic Navajo tool. They are typically small flake tools distinguished by steep unifacial or marginal unidirectional retouch along the distal end, lateral edge(s) and end, or around much of the periphery. Some are distinctive convex-edge “snub-nosed” end scrapers and others are smaller, more delicate “thumbnail” scrapers. The protohistoric La Plata Mine examples were all small with steeply retouched and heavily used edges; seven specimens (and possibly an eighth fragmentary specimen) strongly resemble exhausted, hafted hide scrapers recovered from Great Plains contexts. Two others are obviously hafted scraper slugs that could have functioned in hide or

wood working tasks (Kearns 1988b:219). Similar examples have been documented from other protohistoric and early historic Navajo sites (Cella et al. 1984:6-229; Dittert et al. 1961; Elyea 1992:Figure 5.1d-f; Farmer 1942:72; Hancock et al. 1988:791-94, 815-18; Honeycutt and Fetterman 1994; Keur 1941:56; Vivian 1960:145). Although often present in Ute assemblages, the temporal continuity in protohistoric, early historic, and distinctly Navajo assemblages coupled with spatial continuity among the Dinétah, surrounding districts, Big Bead Mesa, and Chaco Canyon implies that small, hafted end scrapers are a Navajo artifact type.

Gravers also are documented from a variety of protohistoric and early historic Navajo contexts (Brown 1992:84-85; Brown et al. 1991; Eddy 1966:510; Elyea 1992:Figure 5.1j; Ford 1979:10; Hancock et al. 1988:843; Hester and Shiner 1963:75), and were a common occurrence on protohistoric loci at the DCA La Plata Mine sites (Kearns 1988b). Most of the gravers are part of small multifunctional tools and typically occur as retouched spurs or utilized projections in addition to a scraping or scraping-cutting edge. Graver spurs also occur on the multifaceted mi-



crocores (Kearns 1988b:247). Gravers are not commonly identified as a Ute artifact type and were an infrequent element in Escalante phase assemblages (Buckles 1971:Figure 169).

Bifacially retouched knives and miscellaneous bifacially flaked implements represent another class of stone artifacts that frequently appear as components of protohistoric and early historic Navajo assemblages from all four San Juan River districts, Big Bead Mesa, and Chaco Canyon (Brown 1992:84-85; Brown et al. 1991:519, 558; Cella et al. 1984; Elyea 1992:43; Elyea and Eschman 1985:252; Hancock et al. 1988:794, 826; Hester and Shiner 1963:21, 74; Honeycutt and Fetterman 1994; Kearns 1988b:321; Keur 1941, 1944; Vivian 1960:145). Marshall (1985:92) noted that the Dinétah phase lithic technology at LA 38946 is characterized by “a substantial frequency and diversity of bifacial artifacts which are accompanied by retouch debris.” Although bifacial tools are common early Navajo artifacts, there is considerable variation in form and, unlike the distinctive Shoshonean knives (Frison 1978:80; A. D. Reed 1988:84-85), no characteristic Navajo-style biface knife has been identified. Although a bifacial knife strongly reminiscent of a Shoshonean knife was recovered from a protohistoric site (LA 16151) with Dinétah Gray ceramics south of Farmington (Elyea 1992:Figure 5.1g), no others have been reported from protohistoric or early historic sites in northwest New Mexico. Hester (1962a:51) lists six different types of “blades” (bifacial knives) from Navajo sites in the Upper San Juan area, but none are identified as having the distinctive shouldered

appearance of a Shoshonean knife. Although biface knives are not, by themselves, a diagnostic artifact form, their repetitive occurrence indicates that they were an important element in the protohistoric and early historic Navajo tool kit.

Most ground stone artifacts recovered from protohistoric and early historic contexts are indistinguishable from artifacts occurring on earlier sites. This is particularly true for milling equipment. Protohistoric and early historic cobble handstones (or one-hand manos) and slab or basin milling stones resemble those found on Archaic and Anasazi sites; the two-hand manos and slab and trough metates noted on early Navajo sites may more often be items collected from Anasazi sites than tools manufactured by Navajos. The two-hand manos and trough metates are not typically identified in Ute assemblages.

Stone arrow-shaft straighteners and shaft smoothers or abraders are a distinctive protohistoric and early historic Navajo ground stone artifact (Brown et al. 1991:615-18; Carlson 1965; Cella et al. 1984:6-258; Elyea and Eschman 1985:252; Farmer 1942:72; Hester 1962a:69, 105; Kearns

1988a; Keur 1941, 1944; Latady and Goff 1994; Marshall 1991:96-99). These artifacts are typically rectangular to subrectangular sandstone blocks, loaf-shaped, rectangular, or plano-convex in cross section, with a concave lengthwise groove across the center of the flat face. This type appears to have been used in pairs (Kluckholm et al. 1971:44) and is stylistically similar to shaft smoothers found on the Great Plains (Farmer 1942:72). Hester and Shiner (1963:76) note that the “elaborate forms found in Pueblo sites of that time [Dinétah and Gobernador phases] were not used by the Navajo.” The shaft smoothers occur in protohistoric, early historic, and in undeniably Navajo contexts. They are found in all four districts in the San Juan region, Chaco Canyon, and at Big Bead Mesa. Shaft smoothers are not commonly found in Ute assemblages.

Comals or flat cooking stones (“Piki griddles”) have also been reported from protohistoric and early historic Navajo sites (Brown 1992: 86-88; Hester and Shiner 1963:31-32; Keur 1944; Marshall 1991:153). Although not a commonly recovered artifact, comals appear to be more indicative of the early historic rather than protohistoric occupation (Eddy 1966:510).

Elaborate carved stone pipes may represent another early Navajo ground stone artifact type. Two specimens of different styles were reported from the Navajo Reservoir District (Carlson 1965:21-24; Hester 1962a:105; Skoglund et al. 1992). A carved-relief clay pipe recovered by Keur (1944:82) was identified by an informant as a pipe used in the Antelope Corral Way

ceremony. Although occurring infrequently, the carved relief or unusual conformation distinguishes these pipes from the tube or conical “cloud blower” pipes. Hester (1962a:64) identifies the latter form as a Gobernador phase artifact type. The carved stone pipes appear to represent a historic, not protohistoric, artifact type in northwest New Mexico.

### Change in Navajo Lithic Technology

Like many other aspects of material culture, Navajo lithic technology changed during the Dinétah and Gobernador phases. Dittert et al. (1961), Hester (1962a), and Hester and Shiner (1963) addressed this change in stone tool use, but were restricted to identifying artifacts of Puebloan origin versus those of ancestral Navajo origin. More recently Marshall (1985) and Elyea (1992) have used tool and debitage data to address technological change in the organization of the tool kit.

Marshall (1985:119) noted little significant difference in the lithic assemblages recovered from the Dinétah and Gobernador phase compo-

nents at La Ceja Blanca and observed that, although a variety of stone tools was recovered from both components, the incidence of formal tools and biface reduction was relatively low. He suggested that, although there was little significant difference between the Dinétah and Gobernador phase assemblages from La Ceja Blanca, the collective assemblage from the Gobernador phase La Ceja Blanca site differed significantly from the Dinétah phase El Campo Navahu assemblage. The assemblage from the earlier site was characterized by a higher diversity of material types, a greater incidence of exotic material types, a higher incidence of biface tools and biface reduction, and a higher incidence of flake platform preparation. Marshall suggested that the more formal character of the earlier assemblage “appears to reflect the technology of the ancestral Athabaskan [*sic*] prior to the shift towards an ad hoc core flake reduction strategy” (1985:92).

Elyea (1992) recently used the variation in bifacial artifacts, biface reduction debris, and debitage attributes in Dinétah and Gobernador phase assemblages to examine changes in subsistence strategies. She argued that, if lithic manufacturing strategies are tied to subsistence strategies (Parry and Kelly 1987), the apparent decline in emphasis on bifacial reduction and formal tool manufacture between the Dinétah and Gobernador phases “could indicate that early Navajo subsistence was based on a combination of hunting, gathering, and farming, with agriculture assuming greater importance by the Gobernador phase” (Elyea 1992:47). This is a reasonable argument, particularly

considering that the change in early Navajo lithic technology mirrors a similar change between the Archaic and Anasazi periods.

Another factor for the change in lithic technology between the Dinétah and Gobernador phases, however, may be increased access to metal tools. The introduction of metal tools may have negated the need for biface knives, formal scrapers, gravers, and large chopping implements. Although subsistence strategies were undoubtedly changing during the protohistoric to historic transition, unlike the Archaic to Anasazi technological transformation, subsistence change may not have been the primary agent responsible for the reorganization of Navajo lithic technology. Indeed, Marshall notes:

It appears that the sixteenth century assemblage from El Campo Navahu is more similar to an ancestral industry, whereas the late seventeenth-early eighteenth century assemblages from La Ceja Blanca, Rincon Alemita, and Rincon Luis are different, *probably largely because of the availability of metal tools*. (1985:193; emphasis added)

## Conclusions

This research used a sample of thirty-seven protohistoric and early historic sites from four geographic districts in the Upper San Juan River area to test six hypotheses concerning Navajo lithic technology. The sample was not weighted toward limited activity locales; structural remains were present at a number of the sites.

The first hypothesis stated that stone artifact assemblages at most protohistoric and early historic sites in northwest New Mexico were small. The data support the hypothesis and indicate that most protohistoric and early historic nonpueblito sites in the region contain fewer than five hundred stone artifacts, including debitage. There are notable exceptions, however, and two assemblages exceed a thousand items. The common occurrence of small assemblages is considered indicative of short-term site occupation and high residential mobility during the protohistoric and early historic periods in northwest New Mexico.

The second hypothesis stated that there is considerable diversity in lithic assemblage composition among protohistoric and early historic sites and is supported by the sample. Protohistoric and early historic sites are characterized by considerable variability in the number and relative proportions of stone artifact types and lithic materials. This variability is a reflection of the differential placement of individual sites and intrasite loci within a broader settlement system, access to local lithic materials, and the performance of diverse tasks

requiring tools that occupied different roles in the technological organization of the tool kit.

The last four hypotheses were interrelated and were examined in the context of a single research question. Do the protohistoric sites north of the San Juan River and west of the traditional Dinétah region represent the archaeological remains of Athapaskans ancestral to the historic Navajo occupants of the Dinétah, or are they the remains of Shoshoneans ancestral to the Southern Ute? Hypothesis 3 stated that, despite inherent diversity in the protohistoric and early historic assemblages, there are consistently reoccurring common denominators in the assemblages that are characteristic of the protohistoric and early historic period lithic technology. Hypothesis 4 stated that continuity is evident in the range and style of stone tools and the use of exotic lithic materials between protohistoric and early historic sites in the Dinétah and among protohistoric and early historic sites associated with Navajo ceramics in adjacent areas to the west and north. Hypothesis 5 stated that, although continuity in artifact type and exotic material use can be demonstrated between protohistoric and early historic assemblages, change in the lithic technology is also



evident. Hypothesis 6 indicated that similarities and differences in Navajo and Ute lithic technologies may be used to examine the evidence for Ute or Navajo cultural affiliation at the protohistoric sites north of the San Juan River.

The protohistoric and early historic lithic technologies share similar lithic material selection practices, reduction techniques, and numerous tool types with the earlier Archaic and Anasazi technologies of northwest New Mexico and with other archaeological complexes across the Colorado Plateau. There are, however, distinctive stone artifacts and nonlocal and exotic materials that occur consistently in protohistoric and early historic assemblages in the GLB, Navajo Reservoir, Gallegos, and ALP districts in the San Juan River region, in Chaco Canyon, and at Big Bead Mesa. The evident temporal continuity of the artifact types and exotic material use, coupled with their spatial continuity, is considered sufficient to suggest that they represent the common elements of a shared lithic technology. The data suggest this common technology was shared by protohistoric Athapaskans and the historic Navajo occupants of the Dinétah, and not between protohistoric or historic Shoshoneans living in the San Juan River region and historic Navajos in the Dinétah, Chaco Canyon, and at Big Bead Mesa. The artifact types include (1) small unnotched triangular projectile points, small basal-notched or concave base side-notched projectile points, and small side-notched points in general; (2) small multidirectionally flaked core nuclei or microcores; (3) flake knives and flake knife/scrapers made on elongate flakes or blades; (4)

small hafted scrapers or exhausted scraper slugs, including snub-nosed end scrapers, other steeply retouched “formal” side or end scrapers, and thumbnail scrapers; (5) gravers, either singly or on combination tools; (6) bifacial knives and miscellaneous bifacially reduced tools; and (7) rectangular sandstone shaft abraders or straighteners. Comals or flat stone griddles and elaborate carved stone pipes also are potentially characteristic of the early historic Navajo.

Obsidian, particularly Jemez Mountain varieties, and, to a lesser degree, Pedernal chert or chalcedony are consistent exotic materials on protohistoric and early historic sites in all four districts and on Navajo sites in the Chaco Canyon and Big Bead Mesa areas. They are considered distinctive Athapaskan-early Navajo exotic lithic materials. Silicified wood is a material widely used by both protohistoric and early historic groups in the study area. Current information indicates that it is common in the central and western portions of the San Juan Basin, but is rare north of the San Juan River and east of the Blanco Canyon drainage. Its archaeological distribution implies that protohistoric and early historic groups in

all four districts included areas south of the San Juan River as a lithic procurement area.

Protohistoric and early historic Navajo lithic reduction trajectories represent a mix of expedient flake-core, formal uniface, and formal biface technologies. The reduction strategies employed include a combination of opportunistic percussion flaking to obtain blanks for expedient flake tools, percussion reduction of cobbles and nodules for core tools, production of flake blanks for use as curated, maintained uniface tools, and the controlled sequential percussion and pressure reduction of curated bifacial artifacts. The relatively common occurrence of a bifacial reduction strategy is a characteristic aspect of Athapaskan-early Navajo lithic technology, particularly during the protohistoric period.

Differences in the relative frequency of bifacially reduced tools and attendant debitage between Dinétah and Gobernador phase sites may reflect increased access to metal implements during the latter phase rather than, or coincident with, changes in subsistence economy (Hester 1962b; Marshall 1985:193). This shift from a biface-oriented technology to an expedient flake-core technology may be as, or more, indicative of the acquisition of metal tools than a hypothesized transition from a hunting and gathering economy to an agricultural economy (Elyea 1992).

Some researchers have noted a resemblance between certain Athapaskan-early Navajo stone artifact attributes and Plains lithic technologies (Farmer 1942; Kearns 1988b:317; Marshall 1985). Although some artifact types such as gravers, snub-nosed end scrapers,

and elongate flake and blade cutting/scraping implements, and rectangular sandstone single-groove shaft smoothers impart a Plains “flavor” to these assemblages, the absence of the characteristic beveled-edge biface knives common on the Great Plains in the protohistoric period does not support this argument. The lithic technology evidenced by the northwest New Mexico assemblages is generally characteristic of faunal resource exploitation and may simply indicate a greater proportional reliance on animal resources in the protohistoric and early historic Navajo economy.

Although some insight into the protohistoric and early Navajo archaeology of northwest New Mexico has been gained from this research, many questions are unanswered and the arguments presented need to be substantiated with additional data. If we are going to explain variability among sites and between time periods, analysts must begin to identify and more clearly describe discrete attributes inherent in the stone artifact assemblages. Given better analytical and descriptive control, the salient attributes of protohistoric and early historic period lithic technologies can be identified. These attributes and the variability in lithic assemblages

from the protohistoric and historic periods and from the different geographic districts can then be used to address questions not only about regional settlement and subsistence systems, but also questions of cultural origin, interaction, acculturation, and the dynamics of territorial expansion. Hopefully, as more data become available from sites currently under investigation as part of Fruitland Coal Gas projects (Hogan et al. 1991), a fuller understanding will emerge of the participants, events, and motivating influences in this important place and time.

*Acknowledgments.* I appreciate the opportunity provided by Ron Towner to contribute to this collection of papers, and appreciate his review and critique of earlier versions of the manuscript. Also, thanks is extended to David Wilcox for a rather scathing review of my original attempt to describe early Navajo lithic technology. His comments and those of Ron caused me to reconsider the organization of the data and contributed to the final product. The ideas presented are my own, however, and any shortcomings in the paper are mine.

## II NAVAJO EXPANSION OUT OF THE DINÉTAH

## 7

# The Pueblito Phenomenon A New Perspective on Post-Revolt Navajo Culture

Ronald H. Towner

## Introduction

Pueblitos are small stone structures, located primarily in the Gobernador and Largo Canyon areas of northwestern New Mexico (Figure 7.1), that have played an important role in interpretations of Navajo culture by anthropologists and historians alike (Hogan 1991). Pueblitos and intrusive ceramics have been used to infer a massive influx of Puebloan refugees that fundamentally changed early Navajo culture after the Spanish Reconquest of A.D. 1692. These Puebloan immigrants have been proposed as the originators of numerous Navajo cultural traits including various religious motifs and artistic styles (P. Schaafsma 1963), painted pottery, weaving, origin myth, clans, matrilineal descent, matrilineal residence, and masonry architecture (Hester 1962a:89). In a recent summary of Navajo history, Bailey and Bailey (1986:15) suggest that the post-Revolt Navajo were "biological and cultural hybrids, neither Athapaskan nor Puebloan, but a product of both." This interpretation of the Diné as "Athapaskans" prior to A.D. 1700 and "Navajo" after A.D. 1700 has had a profound influence not only on our views concerning the Navajo but also on our

interpretations of culture change. The purpose of this paper is to review the temporal and spatial data concerning pueblitos and examine the implications of these data for our interpretations of both early Navajo culture history and Navajo interaction with non-Navajos.

### Previous Pueblito Research

Sporadic research has been conducted on pueblitos throughout this century. A review of the history of pueblito research, however, shows that



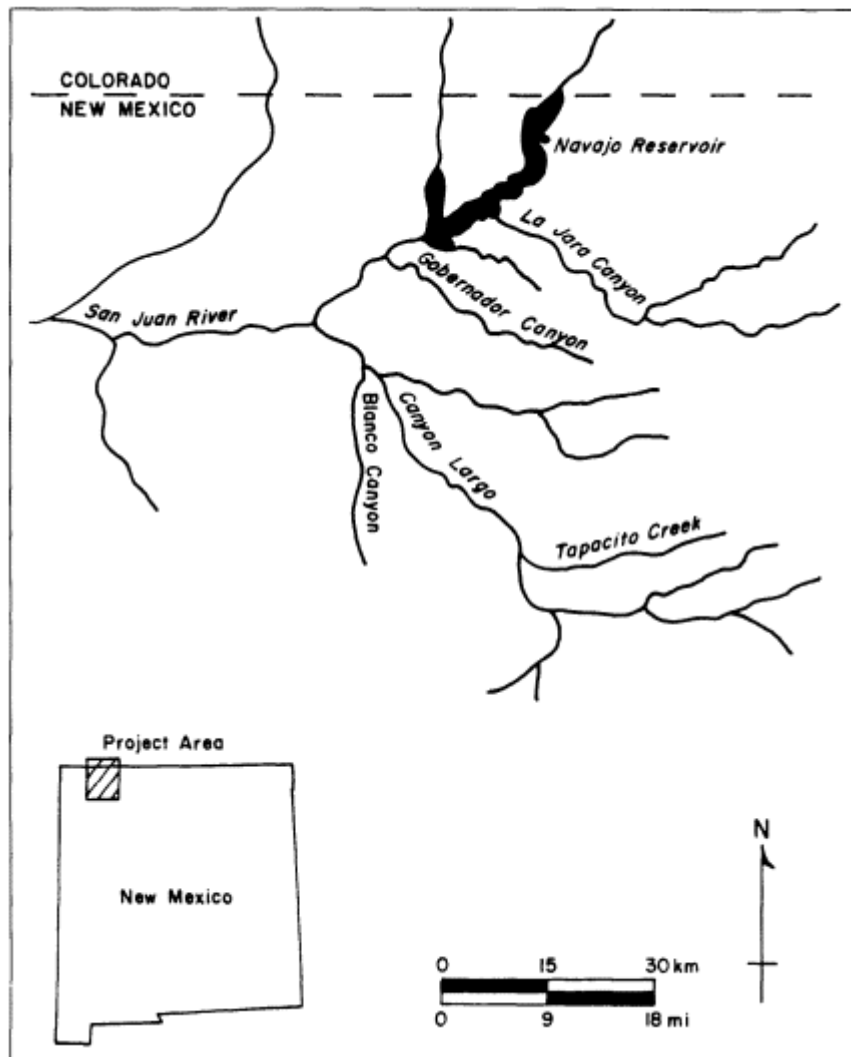


Figure 7.1.  
Map of Dinéah area.

untested hypotheses have been used as basic assumptions and ultimately elevated to the level of accepted fact (Hogan 1991). This uncritical approach to research on early Navajo sites has resulted in unsubstantiated views of Navajo culture used by historians, ethnographers, archaeologists, and anthropologists.

The first published report on pueblitos (Kidder 1920) was a result of surveys and excavations conducted in

the Largo-Gobernador area by A. V. Kidder, Nels Nelson, and Earl Morris. Noting the co-occurrence of both

stone architecture and forked-stick hogans, Kidder (1920:327) suggested that “their builders were in contact with the Navajo [and] were members of one of the Pueblo tribes, who for some reason came north.” The cause of a Puebloan emigration was indicated by a single historical reference as the reconquest of Jemez Pueblo (Bandelier 1890, pt. 2:215-16, cited in Kidder 1920:328).

Research on Navajo archaeological sites languished for several years after Kidder’s initial article. Two important projects in the late 1930s, however, crystallized the impression of pueblitos as refugee habitations. The first was the collection and dating of tree-ring samples from Tapacito Ruin (LA 2298) by E. T. Hall and W. S. Stallings. The dates from this site (Hall 1951) formed two clusters, A.D. 1690 and A.D. 1694, and seemed to confirm the refugee hypothesis (see Towner and Dean 1992 for a more complete discussion of the LA 2298 tree-ring dates).

At about the same time, Dorothy Keur conducted excavations in the Largo-Gobernador area and at Big Bead Mesa to the southeast (Keur 1941, 1944). Despite the preponderance of Navajo ceramics and forked-stick hogans in both areas, Keur viewed the Gobernador area as “a refuge area, a place where the uprooted Puebloans joined the erstwhile hostile Navahos to hide out against a common foe” (1944:86). Her evidence was not archaeological, however, but historical (Twitchell 1911, cited in Keur 1944:85).

Although Farmer (1942) had suggested a purely Navajo origin for the pueblitos, the refugee hypothesis had

become firmly established by the 1940s. This situation was reinforced by research conducted in the late 1950s and early 1960s as part of the Navajo Land Claim and Navajo Reservoir projects (Dittert et al. 1961; Eddy 1966; Hester 1962a; Hester and Shiner 1963).

The Navajo Land Claim instigated the collection of a large number of tree-ring samples from sites throughout the northern Southwest. Unfortunately, legal restrictions prevented dissemination of much of the data and only the tree-ring dates were published (Stokes and Smiley 1963, 1964, 1966, 1969). Because of the legal restrictions and poor provenience information, this large body of data has never been fully exploited.

The Navajo Reservoir District is located immediately to the north of the Largo-Gobernador area and was the site of one of the largest archaeological salvage operations of the time (Eddy 1966). A Navajo cultural chronology that included the controversial pre-Revolt Dinétah phase (A.D. 1550-1700) and the post-Revolt Gobernador phase (A.D. 1700-1775) was defined during the project (Dittert et al. 1961; Eddy 1966). Gobernador Phase traits included pueblitos and painted pottery, both derived from Puebloan refugees. It was described as “a time of extreme ac-

culturation between the Navajos, Pueblos, and Spanish, due to the effects of the Pueblo Revolt” (Hester 1962a:63). This definition, however, was based on the work of Keur (1941, 1944) and Farmer (1942), not on materials found within the reservoir. Within the Navajo Reservoir District, two small pueblitos were found on boulders, but neither yielded tree-ring dates and both ceramic assemblages were dominated by Navajo-style pottery (Hester and Shiner 1963). They concluded:

The Navajo Reservoir is at the extreme northern edge of the area inhabited by Pueblo refugees after the revolt... . It is apparent that if Pueblo refugees occupied the Navajo Reservoir, they must have been few in number, living as isolated family units... . It is clear that the major Navajo-Pueblo acculturation did not occur within the boundaries of the Navajo Reservoir but took place in the localities immediately to the south. (1963:73)

Two years later, Carlson (1965) published a reevaluation of the sites in the Largo-Gobernador area excavated by Morris. It was these sites, primarily Three Corn Ruin (LA 1871) and Old Fort Ruin (LA 1869), that led Kidder (1920), Keur (1944) and Hester and Shiner (1963) to support the refugee hypothesis. These structures were located in defensive positions near Gobernador Canyon and each contained numerous masonry rooms in direct association with forked-stick hogans. Carlson’s interpretation of the few available tree-ring dates, however, indicated that the sites were constructed more than twenty years after the failed Pueblo Revolt of A.D. 1696. He inferred, therefore, that they were built not for protection against the Spaniards, but for protection against Ute raiding (Carlson

1965:101). This position has recently been supported through a line-of-sight analysis that suggests a defensive network of sites (Jacobson et al. 1992) and not simply individual defensively oriented sites.

The tree-ring data that indicated pueblito construction in the A.D. 1720s did not lead Carlson to abandon the refugee hypothesis, however. He merely suggested that the sites in the Largo-Gobernador area were built as a response to later Ute pressure. He still believed that an influx of refugees profoundly influenced Navajo culture and proposed that the original habitation sites of the refugees were located elsewhere. So pervasive was the refugee hypothesis that despite contrary evidence, Carlson suggested:

since the culture shown is obviously a mixture of Pueblo and Navajo traits, ... we must look elsewhere for a slightly earlier occupation by a mixed Pueblo and Navajo group. Such an occupation has been

found in the Navajo Reservoir District (Dittert, Hester, and Eddy 1961; Hester and Shiner 1963) on the San Juan proper on the northern border of the Gobernador District. (Carlson 1965:98)

Thus, by the late 1960s, there was an emerging view that the pueblitos were built as a response to Ute pressure, but their construction was still attributed to a massive influx of Pueblo refugees, possibly after the failed Pueblo Revolt of A.D. 1696 (Carlson 1965). The original habitation sites of these refugees, however, were not identified in either the Navajo Reservoir District or the Largo-Gobernador area.

Although a few studies were conducted in the 1970s (Haskell 1975; J. P. Wilson and Warren 1974), the dominant view of pueblitos remained one of construction by refugees, in response to either Spanish or Ute pressure. In recent years, however, this view has begun to change. Powers and Johnson (1987) surveyed much of the Largo-Gobernador area and documented more than a hundred pueblito sites, a number far exceeding any previous estimates. They also summarized the existing tree-ring dates and noted a gap between the A.D. 1694 dates from Tapacito Ruin and all the other pueblitos. They suggested that this gap was the result of a small sample of dated sites ( $n = 17$ ).

More recently, Marshall (1991) conducted intensive surveys around nine pueblitos and discovered that in eight cases pueblitos were parts of larger communities that often included forked-stick and masonry-based hogans, sweat lodges, sheep corrals, ramadas, and extramural hearths and ovens. His analysis of the

surface ceramics on these sites indicates that Puebloan wares, a primary criterion used to support the refugee hypothesis, occur in proportions of 8 percent or less, and are derived from a variety of both Eastern and Western Pueblo groups. His ceramic frequencies are similar to those documented for Big Bead Mesa (Keur 1941) and the Navajo Reservoir sites (Hester and Shiner 1963).

L. S. Reed and Reed (1992b, this volume) also question the assumption that Puebloan refugees were the inspiration for Gobernador Polychrome. In their analyses of Navajo sites with and without Gobernador Polychrome ceramics, they indicate that this purported hallmark of the Gobernador phase may have been manufactured as early as A.D. 1650, substantially earlier than any proposed influx of refugees. They suggest that Gobernador Polychrome was made by Navajo potters who incorporated both Western and Eastern Pueblo design styles in its manufacture. In the last few years, therefore, both ceramic and architectural evidence for the refugee influx have been questioned.

As part of the renewed interest in pueblito sites, Hogan (1991) re-



viewed both the archaeological and historical evidence, and concluded that data in support of the refugee hypothesis are almost nonexistent. The historical data consist of a single, second-hand reference to Jemez Indians fleeing to the Navajo country; the majority of Puebloans who left the Rio Grande went to Hopi and Zuni (Hogan 1991). The archaeological data are composed of a small percentage (<10 percent) of Puebloan ceramics on sites with both forked-stick hogans and stone architecture. In an odd twist on the research, Hogan (1991) shows that historians such as Forbes (1960) and McNitt (1972) cited Kidder's 1920 work as evidence of the refugee influx. It must be remembered, however, that Kidder's evidence was primarily historical, not archaeological. Hogan's review shows that neither archaeologists nor historians were using independently derived data to support their conclusions. He argues against the influx of refugees in massive numbers, instead suggesting that, at most, a few hundred individuals were involved. Hogan concludes:

Although there is little question that Navajo culture was influenced by Puebloan culture, the source of that influence is more likely to be found in the long history of Navajo-Pueblo relations than in the influx of Pueblo refugees in the closing years of the seventeenth century. (1991:22)

The tree-ring data collected as part of this project support Hogan's position and suggest that we must discard the notion of a massive influx of refugees and look elsewhere for explanations of Navajo cultural change.

## The Pueblito Phenomenon

Pueblitos have been used as a critical piece of evidence in support of the refugee hypothesis almost since the beginning of this century. Although small percentages of Puebloan ceramics have been the primary criterion used to infer the influx of refugees, the architecture and tree-ring data from pueblito sites have been important as well. A thorough review of the temporal and geographic distribution of pueblitos, however, has not previously been conducted.

Several hypotheses can be devised to determine if the traditional interpretations of these structures are correct. The five hypotheses presented below invoke both temporal and spatial data and, when tested, will yield important information about the nature of the pueblito phenomenon:

1. If the pueblitos were built by Puebloan refugees, they should correspond temporally to documented hostilities by the Spaniards against the Pueblos.

2. If the pueblitos were built in response to Ute pressure, they should correspond temporally to documented Ute hostilities against the Navajo.
3. If the pueblitos are not temporally related to Spanish hostilities in the Rio Grande, but were built by Pueblo refugees, there should be other Navajo-Pueblo sites that do correlate with an exodus of Puebloans from the Rio Grande.
4. If the pueblitos were built as protection against the Spaniards, they should correspond spatially to the areas of Spanish intrusion.
5. If the pueblitos were built as protection against the Ute, they should correspond spatially to the areas of Ute expansion (or Navajo expansion against the Ute).

The following sections test these five hypotheses using tree-ring data collected by numerous researchers over the past seventy years.

### Tree-Ring Data

Tree-ring samples have been collected from pueblito sites for almost sixty years (Hall 1951; Hannah 1965; Keur 1941, 1944; Stokes and Smiley 1963, 1964, 1966, 1969). Unfortunately, samples collected prior to the 1970s were usually taken from loose, unprovenienced logs in and around the pueblitos. This collection strategy provided little information about pueblito growth and abandonment and often resulted in the incorporation of anomalous dates into a site database. More recent collections (Towner 1992; Towner and Dean 1992; J. P. Wilson and Warren 1974) have

provenienced samples to specific beams in individual rooms whenever possible. More detailed information about the location and condition of samples allows us to make more detailed inferences concerning the behavior that created these sites. The three approaches to analyzing tree-ring data presented below bring us closer to behaviorally meaningful inferences regarding the pueblito phenomenon.

### *Distribution of Dates*

A total of 808 dated specimens has been collected from pueblito sites (Table 7.1). The specimens include both “cutting” and “noncutting” dates and display a relatively normal distribution (Figure 7.2). A peak of activity is indicated in the late 1720s, but the overall distribution supports a late seventeenth through mid-eighteenth-century interpretation of the site

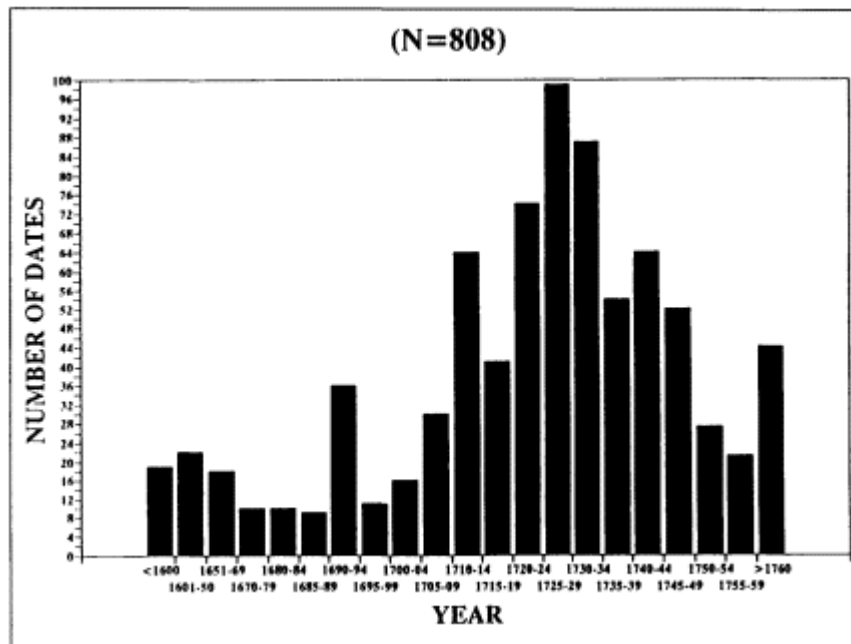


Figure 7.2.

Distribution of tree-ring dates from pueblito sites.

occupations. Three time periods appear anomalous within the date distribution: prior to A.D. 1670, after A.D. 1760, and A.D. 1690-1694. The early and late time periods (the tails of the distribution) are not normally distributed simply because the time periods involved are much longer than those used in the rest of the graph. Plotting the pre-1600 time period by five-year intervals would result in a long sloping tail. If the post-1760 period were plotted by five-year intervals, the tail would slope, although several sites outside the Dinétah area do contain substantial numbers of post-1760 dates. The A.D. 1690-1694 time period represents a specific sampling and behavioral situation at Tapacito Ruin which is discussed by Towner and Dean (1992). The overall date distribution does nothing to dispel the notion of a refugee influx, although the date range

extends well before any suggested exodus from the Rio Grande.

### *Distribution of Cutting Dates*

Cutting dates, more properly termed tree “death” dates, indicate that the last ring on a sample was the final year of cambial growth on a tree

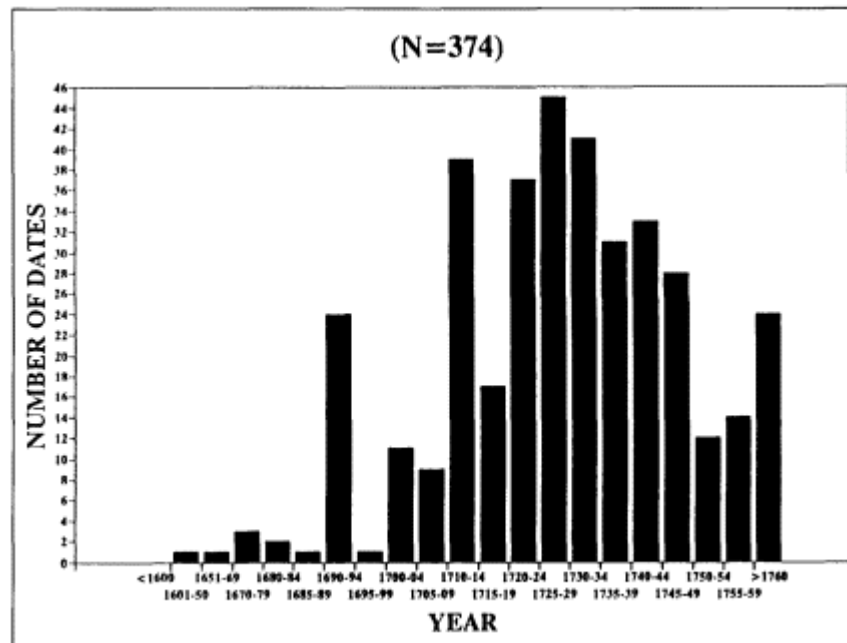


Figure 7.3.

Distribution of cutting dates from pueblito sites.

(Stokes and Smiley 1968). Archaeologists must use “bridging events” (Dean 1978) to associate these biological events with cultural phenomena. The first “bridging event” is the assumption that the death of the tree was a result of human activity. This assumption can be valid only if there is no evidence to the contrary.

A total of 374 cutting dates have been identified from pueblito sites (Figure 7.3). The cutting dates are not normally distributed but show a time range (A.D. 1600 to post A.D. 1760) similar to the overall date distribution. The majority of cutting activity appears to have taken place between A.D. 1690 and A.D. 1760, precisely the time period inferred for the influx of Puebloan refugees. The large number of cutting dates ( $n = 24$ ) between A.D. 1690 and A.D. 1694, however, were derived from Tapacito Ruin and are slightly earlier than the inferred refugee influx, but do coincide

with Vargas's Reconquest of New Mexico. A portion of these 1690s dates ( $n = 15$ ) were obtained by Hall and Stallings (Hall 1951), and have been a part of the pueblito database for over forty years. Their influence on the interpretation of pueblito sites has been far in excess of their quantity.



TABLE 7.1 Summary of Tree-Ring Dates from Pueblito Sites.

| <i>Site Name</i> | <i>Site Number</i> | <i>Hogan or Pueblito</i> | <i>Earliest Cutting Date</i> | <i>Latest Date</i> | <i>Number of Clusters</i> | <i>Cutting Date</i>          | <i>Number of Dates</i> | <i>Source</i>          |
|------------------|--------------------|--------------------------|------------------------------|--------------------|---------------------------|------------------------------|------------------------|------------------------|
| Adams Canyon     | LA 55824           | Pueblito                 |                              | 1736+vv            | 0                         |                              | 4                      | Towner 1992            |
| Boulder Fortress | LA 55825           | Pueblito                 | 1723G                        | 1728v              | 1                         | 1727                         | 8                      | Towner 1991            |
|                  |                    | Hogan                    |                              | 1709+vv            | 0                         |                              | 1                      | Towner 1991            |
| Tapacito Ruin    | LA 2298            | Hogan (?)                | 1690r                        | 1690r              | 1                         | 1690                         | 9                      | Towner and Dean 1992   |
|                  |                    | Pueblito                 | 1694B                        | 1694B              | 1                         | 1694                         | 23                     | Towner and Dean 1992   |
| Frances Canyon   | LA 2135            | Pueblito                 | 1710B                        | 1745c              | 6                         | 1710, 14, 15, 49, 22, 36, 43 |                        | Towner 1991            |
|                  | LA 71496           | Hogan                    |                              | 1566+vv            | 0                         |                              | 3                      | Towner 1991            |
| Hooded Fireplace | LA 5662            | Pueblito                 | 1723B                        | 1723B              | 1                         | 1723                         | 9                      | Towner 1991            |
| The Citadel      | LA 55828           | Pueblito                 |                              | 1688++B            | 0                         |                              | 5                      | Towner 1992            |
| Simon Canyon     | LA 5047            | Pueblito                 | 1691G                        | 1754+G             | 1                         | 1754                         | 4                      | Towner 1991            |
| Largo School     | LA 5657            | Pueblito                 | 1736c                        | 1737G              | 1                         | 1736                         | 6                      | Towner 1991            |
| Hadlock's Crow C | LA 55830           | Pueblito                 |                              | 1661vv             | 0                         |                              | 3                      | Towner 1991            |
| Crow Canyon      | LA 20219           | Pueblito                 |                              | 1723vv             | 0                         |                              | 7                      | Towner 1991            |
| Jarmillo Canyon  |                    | Pueblito                 |                              | 1731+G             | 1                         | 1730                         | 3                      | Towner 1992            |
| Split Rock       | LA 5664            | Pueblito                 |                              | 1727vv             | 0                         |                              | 4                      | Towner 1991            |
|                  |                    | Hogan                    |                              | 1665vv             | 0                         |                              | 2                      | Towner 1991            |
| Shaft House      | LA 5660            | Pueblito                 |                              | 1712+LB            | 0                         |                              | 4                      | Towner 1992            |
| Truby's Tower    | LA 2434            | Pueblito                 | 1721inc                      | 1752inc            | 1                         | 1743                         | 9                      | Stokes and Smiley 1969 |
| Kin Yazhi        | LA 2433            | Pueblito                 | 1721inc                      | 1743c              | 1                         | 1732                         | 12                     | Stokes and             |

|                        |             |          |                |   |            |    |                                  |
|------------------------|-------------|----------|----------------|---|------------|----|----------------------------------|
| CottonwoodLA<br>Divide | 55829       | Hogans   | 1715vv         | 0 |            | 7  | Smiley<br>1969<br>Towner<br>1992 |
| Pork Chop LA<br>Pass   | 5661        | Pueblito | 1725inc1747inc | 2 | 1742, 1745 | 15 | Stokes<br>and<br>Smiley<br>1969  |
| Pointed<br>Butte       | LA<br>10733 | Hogan    | 1683inc1748+   | 1 | 1721       | 8  | Stokes<br>and<br>Smiley<br>1969  |

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| Site<br>Name          | Site<br>Number | Hogan<br>or<br>Pueblito | Earliest<br>Cutting<br>Date | Latest<br>Date | Number<br>of<br>Clusters | Cutting<br>Date            | Number<br>of<br>Dates | Source                          |
|-----------------------|----------------|-------------------------|-----------------------------|----------------|--------------------------|----------------------------|-----------------------|---------------------------------|
| Canyon View           | LA<br>55827    | Pueblito                | 1701inc                     | 1734vv         | 2                        | 1727,<br>1734              | 27                    | Towner<br>1993                  |
| Overlook Site         | LA<br>10732    | Pueblito                | 1725inc                     | 1732c          | 2                        | 1725,<br>1727              | 12                    | Stokes<br>and<br>Smiley<br>1969 |
|                       |                | Hogan                   | 1682inc                     | 1727c          | 0                        |                            | 4                     | Stokes<br>and<br>Smiley<br>1969 |
| Foothold<br>Ruin      | LA<br>9073     | Pueblito                | 1720c                       | 1737+          | 2                        | 1734,<br>1737              | 11                    | Stokes<br>and<br>Smiley<br>1969 |
|                       |                | Hogan                   | 1667inc                     | 1710+          | 0                        |                            | 4                     | Stokes<br>and<br>Smiley<br>1969 |
| Three Corn<br>Ruin    | LA<br>1871     | Pueblito                | 1634L                       | 1745G          | 5                        | 1709, 14, 62<br>28, 31, 32 | 62                    | Towner<br>1992                  |
|                       |                | Hogan                   | 1707c                       | 1715G          | 0                        |                            | 3                     | Robinson<br>et al.<br>1974      |
| Unreachable<br>Hogans | LA<br>58841    | Hogans                  |                             | 1941+GB        | 0                        |                            | 8                     | Towner<br>1992                  |
| Cabresto<br>Mesa      | LA<br>2138     | Pueblito                | 1712inc                     | 1714r          | 1                        | 1714                       | 12                    | Stokes<br>and<br>Smiley<br>1963 |
| Old Fort Ruin         | LA<br>1869     | Pueblito                | 1721GB                      | 1753v          | 5                        | 1743, 46, 59<br>46, 49, 53 | 59                    | Towner<br>1992                  |
|                       |                | Hogans                  |                             | 1747vv         | 0                        |                            | 6                     | Towner<br>1992                  |
| Dos Cerritos          | LA<br>2136     | Pueblito<br>(?)         |                             | 1733r          | 1734r                    | 1                          | 1733                  | 6<br>Robinson<br>et al.<br>1974 |
| Santa Nino            | LA<br>2137     | Pueblito                | 1746r                       | 1750r          | 1                        | 1746                       | 4                     | Robinson<br>et al.<br>1974      |
| Kin Naa Daa           | LA             | Pueblito                | 1727r                       | 1727r          | 2                        | 1727,                      | 16                    | Towner                          |

|                      |         |                  |         |   |      |    |                        |
|----------------------|---------|------------------|---------|---|------|----|------------------------|
|                      | 1872    |                  |         |   | 1727 |    | 1993                   |
| Horn Ranch Site      | LA 1868 | Pueblito 1733c   | 1733c   | 0 |      | 1  | Hannah 1965            |
| Pueblito Canyon      | LA 1684 | Pueblito 1732inc | 1735c   | 1 | 1732 | 5  | Stokes and Smiley 1963 |
|                      | LA 4331 | Pueblito         | 1700+vv | 0 |      | 1  | Hester and Shiner 1963 |
| Munoz Canyon Site 12 | LA 1687 | Pueblito 1734LGB | 1744+vv | 1 | 1718 | 6  | Towner 1993            |
|                      | LA 2297 | Pueblito         | 1726vv  | 0 |      | 4  | Robinson et al. 1974   |
| Site 25              | LA 2305 | Hogan 1718r      | 1722vv  | 0 |      | 3  | Robinson et al. 1974   |
|                      | LA 8948 | Hogan            | 1695vv  | 0 |      | 1  | Robinson et al. 1974   |
| Compressor Station   | LA 5658 | Pueblito 1727G   | 1728G   | 1 | 1727 | 13 | Towner 1992            |

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| Site<br>Name            | Site<br>Number | Hogan<br>or<br>Pueblito | Earliest<br>Cutting<br>Date | Latest<br>Date | Number<br>of<br>Clusters | Cutting<br>Date        | Number<br>of<br>Dates | Source                       |
|-------------------------|----------------|-------------------------|-----------------------------|----------------|--------------------------|------------------------|-----------------------|------------------------------|
| Gould Pass<br>Ruin      | LA<br>5659     | Pueblito                | 1749LGB                     | 1753LGB        | 2                        | 1749,<br>1751          | 17                    | Towner<br>1992               |
|                         |                | Hogan                   |                             | 1710vv         | 0                        |                        | 1                     | Towner<br>1992               |
| Hill Road<br>Ruin       | LA<br>55833    | Pueblito                | 1733L                       | 1741L          | 4                        | 1733, 37, 21<br>38, 41 |                       | Towner<br>1992               |
| Gomez<br>Canyon<br>Ruin | LA<br>55831    | Pueblito                | 1733L                       | 1747vv         | 1                        | 1734                   | 23                    | Towner<br>1992               |
|                         |                | Hogans                  |                             | 1726+vv        | 0                        |                        | 3                     | Towner<br>1992               |
| E-CL-UL-A               |                | Hogan<br>(?)            |                             | 1544+          | 0                        |                        | 1                     | Stokes and<br>Smiley<br>1969 |
| E-CL-UL-F               |                | Hogan<br>(?)            |                             | 1705+          | 0                        |                        | 1                     | Stokes and<br>Smiley<br>1969 |
| E-CL-UL-K               |                | Pueblito                | 1725G                       | 1745inc        | 1                        | 1741                   | 14                    | Stokes and<br>Smiley<br>1969 |
| E-CL-UL-M               |                | Hogan                   | 1723inc                     | 1723inc        | 0                        |                        | 1                     | Stokes and<br>Smiley<br>1969 |
| E-CL-UL-U               |                | Pueblito                | 1689inc                     | 1731inc        | 1                        | 1711                   | 16                    | Stokes and<br>Smiley<br>1969 |
| E-CL-UL-V               |                | Pueblito                |                             | 1730+          | 0                        |                        | 3                     | Stokes and<br>Smiley<br>1969 |
| E-CL-UL-W               |                | Hogan                   | 1701inc                     | 1780+G         | 0                        |                        | 12                    | Stokes and<br>Smiley<br>1969 |
| E-CL-UL-KK              |                | Hogan                   | 1674inc                     | 1729+          | 0                        |                        | 6                     | Stokes and<br>Smiley<br>1969 |
| N-USJ-<br>GLJ-B         |                | Hogan                   |                             | 1743+          | 0                        |                        | 1                     | Stokes and<br>Smiley<br>1963 |
| N-USJ-<br>GLJ-C         |                | Hogan                   | 1700inc                     | 1747inc        | 0                        |                        | 5                     | Stokes and<br>Smiley<br>1963 |

|                   |             |                  |          |   |                        |                              |
|-------------------|-------------|------------------|----------|---|------------------------|------------------------------|
| N-USJ-<br>GLJ-E   |             | Pueblito 1715inc | 1731inc  | 0 | 4                      | Stokes and<br>Smiley<br>1963 |
| Pueblito<br>East  | LA<br>55834 | Pueblito 1713inc | 1713inc  | 0 | 2                      | Stokes and<br>Smiley<br>1963 |
| N-USJ-<br>GLJ-EE  |             | Hogan 1734inc    | 1734inc  | 0 | 1                      | Stokes and<br>Smiley<br>1963 |
| N-USJ-<br>GLJ-LL  |             | Hogan            | 1744+inc | 0 | 2                      | Stokes and<br>Smiley<br>1963 |
| N-USJ-<br>GLJ-QQ  |             | Pueblito 1703G   | 1725c    | 0 | 3                      | Stokes and<br>Smiley<br>1963 |
| N-SJ-LA-D         |             | Hogan<br>(?)     | 1771+    | 0 | 1                      | Stokes and<br>Smiley<br>1963 |
| N-SJ-LA-E         |             | Hogan<br>(?)     | 1745+    | 0 | 1                      | Stokes and<br>Smiley<br>1963 |
| Garcia<br>Canyon  | LA<br>36608 | Pueblito 1701L   | 1722vv   | 1 | 1720, 21, 27<br>22, 22 | Towner<br>1993               |
| Delgadito<br>Ruin | LA<br>5649  | Pueblito 1713G   | 1717+vv  | 1 | 1713-14 5              | Towner<br>1993               |

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| Site<br>Name        | Site<br>Number | Hogan<br>or<br>Pueblito | Earliest<br>Cutting<br>Date | Latest<br>Date | Number<br>of<br>Clusters | Cutting<br>Date | Number<br>of<br>Dates | Source                          |
|---------------------|----------------|-------------------------|-----------------------------|----------------|--------------------------|-----------------|-----------------------|---------------------------------|
| Kin Wola<br>Jini    | LA 12285       | Pueblito                | 1711L                       | 1712LB         | 2                        | 1711,<br>1712   | 15                    | Towner<br>1993                  |
| Tso Bito            | LA             | Pueblito                |                             | 1726v          | 0                        |                 | 3                     | Towner<br>1993                  |
| Lone<br>Warrior     | LA 99802       | Pueblito                |                             | 1682++B        | 0                        |                 | 5                     | Towner<br>1993                  |
| Big Bead<br>Mesa    |                | Hogans                  | 1766cG                      | 1799+          | 1                        | 1784            | 33                    | LTRR<br>Files                   |
| E-C-UC-HH           | CM-139         | Hogan?                  | 1739c                       | 1739c          | 0                        |                 | 1                     | Vivian<br>1960                  |
|                     | CM-4           | Hogan                   |                             | 1779++vv       | 0                        |                 | 2                     | Vivian<br>1960                  |
|                     | CM-18          | Pueblito?               | 1725v                       | 1745+v         | 0                        |                 | 3                     | Vivian<br>1960                  |
|                     | CM-35          | Hogan                   |                             | 1606++vv       | 0                        |                 | 7                     | Vivian<br>1960                  |
|                     | CM-38          | Pueblito                | 1738rG                      | 1739rG         | 1                        | 1739            | 9                     | Vivian<br>1960                  |
|                     | CM-150         | Hogan                   |                             | 1707+vv        | 0                        |                 | 1                     | Vivian<br>1960                  |
| Kinnazinde          | NA 1018        | Pueblito                | 1751v                       | 1760r          | 1                        | 1759            | 15                    | Bannister<br>et al.<br>1966b    |
| Small<br>Klargetoh  | NA 1017        | Pueblito                |                             | 1743vv         | 0                        |                 | 2                     | Bannister<br>et al.<br>1966b    |
| Ganado<br>Crags     | S-MLC-<br>LP-O | Pueblito                | 1762inc                     | 1764incG       | 1                        | 1764            | 8                     | Stokes<br>and<br>Smiley<br>1966 |
| Nazlini             | W-CH-<br>UC-I  | Pueblito                | 1751inc                     | 1762r          | 1                        | 1761            | 18                    | Stokes<br>and<br>Smiley<br>1964 |
| W-LLC-<br>UO-DD     |                | Pueblito?               |                             | 1790+incG      | 0                        |                 | 1                     | LTRR<br>Files                   |
| Spider Rock<br>Fort |                | Pueblito                | 1780v                       | 1780v          | 0                        |                 | 3                     | LTRR<br>Files                   |
| Navajo<br>Fortress  |                | Pueblito                |                             | 1768vv         | 0                        |                 | 3                     | LTRR<br>Files                   |
| ENMU-               | LA 5228        | Hogans?                 | 1747r                       | 1752rG         | 0                        |                 | 2                     | LTRR                            |

1120

See appendix for symbol legend.

Files



*Distribution of Construction Episodes*

Construction episodes are defined as a cluster of cutting and noncutting dates derived from a specific provenience and spanning a relatively short time period (Ahlstrom 1985:58; Towner 1992:64). Two different definitions of a cluster were used in this analysis because of the unevenness of the tree-ring data. For those samples collected prior to 1970, a cluster is defined as two or more cutting dates from a single site within a five-year period. For those samples collected after 1970, a cluster is defined as three or more cutting dates from the same room within a five-year period. Noncutting dates may be used to strengthen, but not define, a cluster.

Sixty-three construction episodes have been identified at pueblito sites. The majority ( $n = 60$ ) of these events have been identified in masonry structures and only a few ( $n = 3$ ) at forked-stick hogans associated with pueblito sites. The temporal distribution of these events (Figure 7.4) indicates that most occurred in the early to mid-eighteenth century. Individually dated events occurred almost exclusively after A.D. 1709 and a majority (80 percent) occurred after A.D. 1720. As noted by Powers and Johnson (1987:127), there is a fifteen-year gap in pueblito construction between A.D. 1694 and A.D. 1709. Although a few cutting dates do occur in that interval, none can be defined as construction episodes.

Tapacito Ruin (LA 2298) was the location of both construction episodes dated prior to A.D. 1709. The pueblito was built in the fall of A.D. 1694 and

corresponds quite well with Vargas's destruction of Jemez Pueblo in late July of the same year (Espinosa 1942). Based upon the tree-ring dates and other data, Towner and Dean argue that Tapacito Ruin "may be the only genuine Pueblo refugee structure in the Dinétah" (1992:327).

The second decade of the eighteenth century saw a "boom" in pueblito construction (see Figure 7.4). Ten construction events, representing building activity at seven sites, have been identified. Nine of these construction episodes occurred prior to A.D. 1715 and could be interpreted as a response to Roque de Madrid's campaigns against the Navajo in A.D. 1709 (Espinosa 1942).

Only two of these events, however, can be positively identified as the construction of living spaces. Kin Wolá Jiní (LA 12285), a seven-room pueblito in upper Carrizo Canyon, contains two clusters that date from A.D. 1711 to 1712. All of the dates, however, are derived from the five-room core of the pueblito and architectural evidence suggests the other rooms were added later. Three Corn Ruin (LA 1871) contains two early clusters (A.D. 1709, 1714), but architectural evidence suggests the true construction date is A.D. 1714 (Towner and Johnson 1995). All other pre-1715 construction

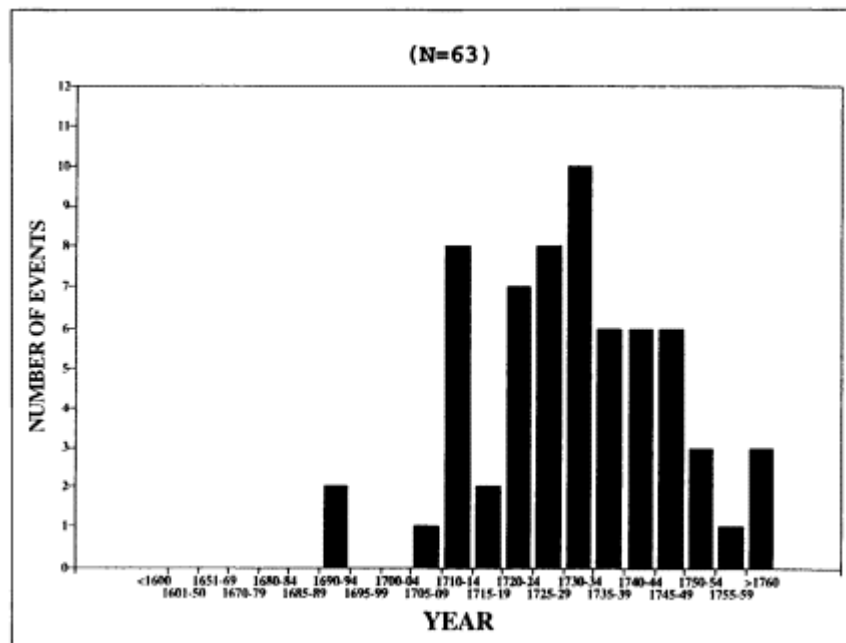


Figure 7.4.

Construction episodes identified at pueblito sites.

events are from either unprovenienced samples (Cabresto Mesa Tower, NLC-E-CL-UL-U), very weak clusters (Delgadito Ruin), or small storage rooms (Frances Canyon Ruin). These construction events certainly do not suggest a strong defensive posture in response to Spanish threats.

The majority of pueblito construction occurred between A.D. 1720 and A.D. 1760, a time period labeled “the Navajo-Spanish Peace” by Reeve (1959). There are few documented Navajo raids against the Spaniards during this interval (Hodge et al. 1945:279) and, after Madrid’s last expedition of A.D. 1709, no punitive Spanish expeditions until the mid-1770s (Reeve 1959).

Navajo hostilities with the Ute, however, increased during this same interval. The Rabal Document (W. W. Hill 1940) is replete with testimony of witnesses who

indicate the Navajo were suffering from Ute attacks throughout the 1706-1743 period. The Navajo even requested Spanish protection from the Ute and welcomed Spanish missionaries at Cebolleta in A.D. 1749 (Reeve 1959; Worcester 1947).

The temporal distribution of pueblitos indicates their construction during times of relative peace between the Navajo and Spaniards. With the single exception of Tapacito Ruin, pueblitos correspond temporally to the

Ute advance and not to any Spanish-Pueblo hostilities in the Rio Grande. It is extremely unlikely, therefore, that most pueblitos were built for protection against the Spaniards. Again with the exception of Tapacito Ruin, they were built instead for protection against Ute raiding.

The temporal distribution of pueblito sites in the eighteenth century does not, in and of itself, disprove the refugee hypothesis. Carlson (1965) and hypothesis 3 above suggest that earlier sites may provide evidence of the influx and that pueblitos were only a slightly later change in settlement patterns. Any such earlier sites, however, have never been documented (again, with the possible exception of Tapacito Ruin). Sites in the Navajo Reservoir District contain small proportions of Puebloan ceramics and few European-derived goods. The researchers themselves suggest that the major Navajo-Pueblo acculturation occurred in the Largo-Gobernador area. All documented sites in the latter area, except Tapacito, however, postdate the supposed refugee influx by at least fifteen years. There are simply no other sites in northwestern New Mexico that have demonstrated evidence of such an influx. Finally, pueblitos and the architectural features they contain have always been one of the criteria for the refugee hypothesis. If neither the pueblito construction episodes nor the associated ceramic assemblages demonstrate Puebloan occupation of these sites, the refugee hypothesis is seriously weakened.

### Spatial Distribution of Pueblitos

The previous discussion has focused on the temporal distribution of tree-ring dates and construction episodes in the pueblito sites. If these events are viewed in their geographic context, a picture of eighteenth-century Navajo culture independent of Puebloan or Spanish military pressure emerges. Pueblitos traditionally have been associated with the ancestral Navajo homeland of Dinétah. With the exception of Keur's work at Big Bead Mesa, Vivian's research (1960) on Chacra Mesa, and Brugge's summary (1972b) of NLC data, pueblitos have been characterized as a Largo-Gobernador phenomenon. The geographic distribution of pueblitos, however, extends well beyond the boundaries of Dinétah. Pueblitos occur to the southeast at Big Bead Mesa, to the south in Chaco Canyon, and west of the Chuska Mountains as far as Black Mesa (Brugge 1972b; Gilpin, this volume). A temporal-geographic trend in the spread of pueblitos indicates their origin in Dinétah, but by the A.D. 1760s, they had spread throughout much of northwestern New Mexico and northeastern Arizona.

The earliest dated pueblito, Tapacito Ruin, was built in the fall of A.D. 1694 (Towner and Dean 1992). Other sites that were initially occupied

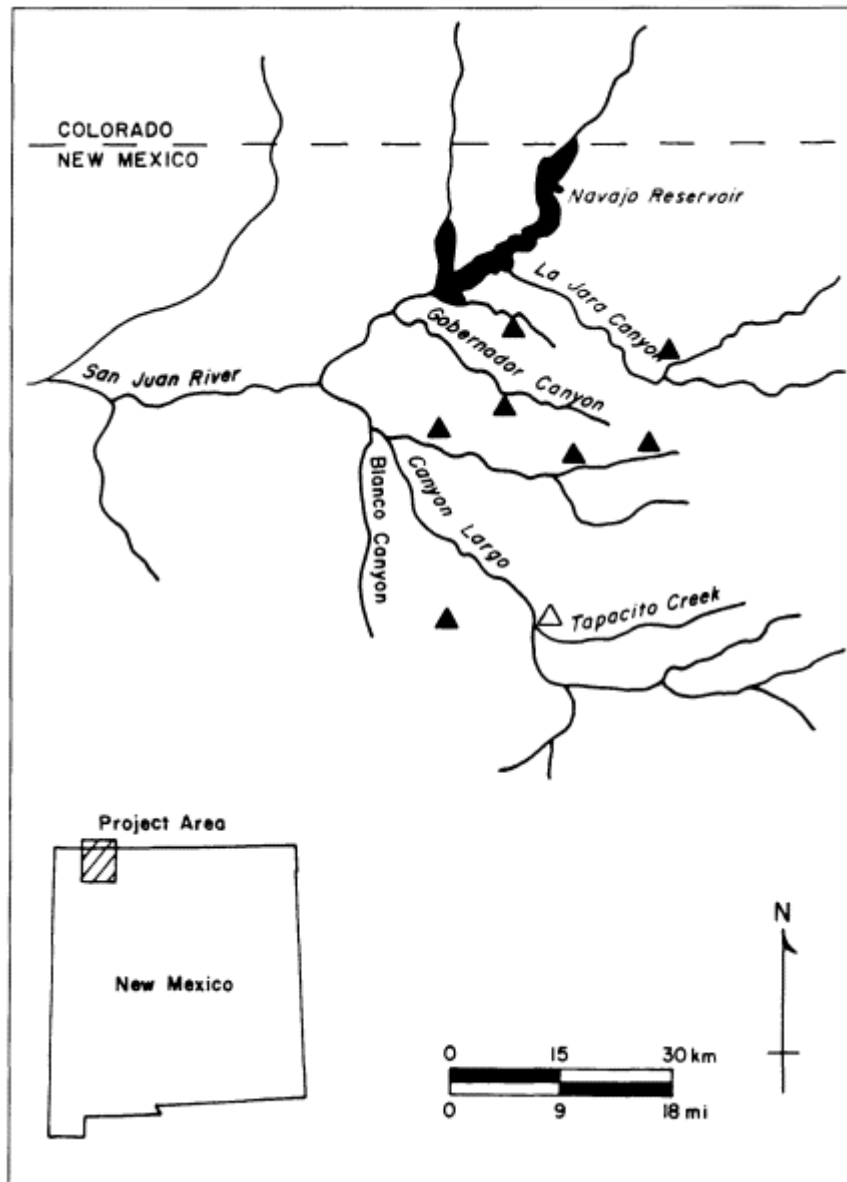


Figure 7.5.

Pueblitos constructed prior to A.D. 1720.

prior to A.D. 1720 are, with a single exception, located more than twenty air miles to the north over very rugged terrain (Figure 7.5). The single exception, NLC-E-CL-UL-U, is located approximately eight miles away on the east face of Paiuche Canyon. If Tapacito was occupied into the 1700s,

therefore, it was essentially isolated until construction of Hooded Fireplace Ruin in A.D. 1723. The probability that any pueblito structure was occupied for almost thirty years without showing evidence of some repair or remodeling is extremely small. I suggest, therefore, that Tapacito Ruin is not related to other pueblitos and should be viewed as a separate entity. It is possible, but not demonstrable, that the inhabitants of Tapacito were those Jemez who “remained away for some time, apparently about ten years, but eventually returned to their deserted towns” (Kidder 1920:328).

It is important to note that all of the early pueblito construction episodes (except at Tapacito) were located on what would have been the northern or “Ute” frontier. Three of these northern sites (LA 1869, LA 1871, and LA 2138), moreover, were visually linked to each other and may have played an important role in an elaborate defensive network of pueblito sites that developed in the 1730s-1750s (Jacobson et al. 1992). Pueblito construction from the A.D. 1730s through the A.D. 1740s occurred throughout the Dinétah area and extended into the Chacra Mesa area as well (Figure 7.6). This expansion outside the boundaries of Dinétah came during the Navajo-Spanish peace; the geographic expansion was toward the south and the major Spanish settlements. This seems an unlikely direction of expansion if the pueblitos were constructed for protection against the Spaniards. It is exactly the direction of expansion one would expect, however, if the threat was from the north.

All the construction episodes on pueblito sites west of



the Chuska Mountains occurred after A.D. 1750. Although there are a few pre-1750 dates, clusters occur in A.D. 1759 or later. The westward expansion of the pueblito phenomenon suggests there was a threat to Navajo security even on the other side of the mountains. Whereas there was some Spanish activity along the Rio Puerco of the East and at Zuni during the middle 1700s, the Spaniards had not been active west of the Chuskas since the destruction of Awatovi in A.D. 1700. It is extremely unlikely, therefore, that the pueblitos west of the Chuskas were built for protection against the Spaniards.

Ute raiding, however, knew no such bounds. Historical references indicate the Ute and their Comanche allies regularly raided the Rio Grande Pueblos, including the large town of Pecos (Kessell 1979) and the Spanish town of Abiquiu. Navajo oral traditions, furthermore, document battles with the Ute as far west as Bidahochi in the Little Colorado drainage (Klara Kelly, personal communication).

Finally, the distinct line of post-1750 pueblitos on the west side of the Chuskas (see Figure 7.6) may indicate hostilities with western groups, such as the Hopi. The only known pueblito west of the Chinle drainage,

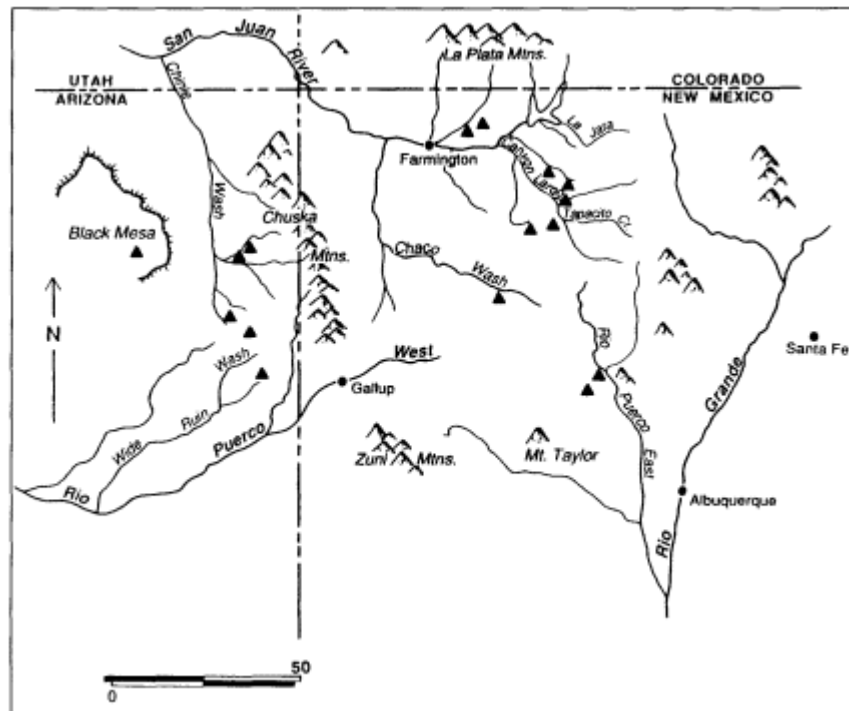


Figure 7.6.

Post A.D. 1730 pueblito construction episodes.

NLC-W-LLC-UO-DD, has not been adequately documented and dates very late in the eighteenth century.

## Discussion

If the five hypotheses presented above are adequate measures, then it is clear we must reevaluate the concept of an influx of Puebloan refugees that fundamentally altered early Navajo culture. The lack of other sites that demonstrate Navajo-Pueblo coresidence leaves the pueblitos as the only possible “refugee” sites in northwestern New Mexico. The pueblitos, however, are neither temporally nor spatially related to Spanish hostilities in the Rio Grande. The data indicate that most of these stone structures were built in response to Ute raiding, almost certainly by the Navajo themselves.

It is clear, therefore, that we must rethink the “refugee hypothesis.”

As Hogan (1991:23) suggests, we must seek alternative explanations for the undoubted Puebloan influences in Navajo culture. Navajo tradi-

tions themselves indicate a Puebloan origin for at least one clan. Whereas Hogan suggests as many as a few hundred Puebloan refugees, I suggest that the “influx” may have been limited to a few families. Indeed, it is possible, but not demonstrable, that Tapacito Ruin was the original location of the Coyote Pass clan, a clan derived from a Jemez woman. This site could have been the residence of the single ancestress necessary for founding a clan.

Puebloan influence in Navajo culture, however, is much too pervasive to be the result of a single individual. A few families could have a much more profound influence, particularly in a matrilineal society such as the Navajo. Two other aspects of early Navajo culture, raiding and trading, may have provided additional mechanisms of cultural exchange between various Puebloan groups and different Navajo populations.

Navajo raiding is well documented in the historical record. It was conducted for several reasons including revenge, booty, and slaves (McNitt 1972). Slaves taken were primarily women and children; the incorporation of these people into matrilineal Navajo society may have had important implications in subsequent generations. Spanish civil and church records may provide relatively good estimates of the number of Puebloans taken captive by the Spaniards during the eighteenth century (Brugge 1968a).

Trading has been an important part of Navajo life throughout the nineteenth and twentieth centuries (W. W. Hill 1940). Small-scale trading by individuals or families is common and, on Black Mesa, Navajo

families have had long-term trading partnerships with individual Hopis for decades (Dana Oswald, personal communication 1993). Small-scale trading is a much more parsimonious explanation for the minor frequencies of Puebloan ceramics found on pueblito sites than a massive immigration of people. Such small-scale trading would account for the minor percentages of Puebloan ceramics on early Navajo sites and for the incorporation of various Puebloan attributes into Gobernador Polychrome (L. S. Reed and Reed 1992b, this volume).

“Nutritional imperative” models of exchange, similar to those developed for Pueblo-Plains interaction (Speth 1983; Speth and Scott 1989; Spielmann 1982) may provide explanatory frameworks for Navajo-Pueblo exchange as well. It is critical, however, that we determine the subsistence strategies of the early Navajo. Whereas we are relatively certain that hunting, herding, and pinyon-nut gathering played important roles in the diet, it is the agricultural component that would have contributed much needed carbohydrates. Although some historical records indicate vast Navajo cornfields (W. W. Hill 1940), there is little archaeological cor-

roboration of an eighteenth-century Navajo diet that emphasized maize agriculture. We simply do not know if the pueblito dwellers relied on their own agricultural plots or exchanged surplus protein products to the Puebloans. Until we have such data, any models of eighteenth-century Navajo culture change will remain untested.

## Conclusions

The demise of the “refugee hypothesis” as an explanation for early Navajo culture change should be welcomed. No longer can archaeologists and anthropologists rely on a simple model of immigration to explain the abundant Puebloan influence in Navajo culture. More complex models must be developed, however, and will require new data as well as new theoretical approaches. L. S. Reed and Reed (1992b, this volume) suggest the formation of “alliances” between Navajo and Puebloan groups as an explanatory framework. I suggest that such “alliances” may have revolved around traditional Navajo social groups such as the “residence group” (Kelly 1986:2) or “outfit” (Kluckhohn and Leighton 1962:109-10).

One of the most important data sets necessary for the testing of any new models of Navajo-Pueblo interaction must be derived from prepueblito Navajo sites. It is critical to know just what the Navajo were before they responded to Ute pressures. Although “Dinétah phase” sites have been described in northwestern New Mexico (Brown and Hancock 1992; Hogan 1989; Fetterman, this volume; Reed and Reed, this volume; A. D. Reed

and Horn 1990), they currently exhibit more variability than patterning (Brown, this volume).

Finally, models of eighteenth-century Navajo culture change must examine areas beyond the traditional homeland of Dinétah. There is abundant evidence that the Navajo were living in other areas, but it has not been exploited by archaeologists (Begay and Roberts, this volume; Gilpin, this volume). This review of the temporal and spatial distributions of pueblitos should be considered a first step in that direction.

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made our shared summers in the Dinétah the highlight of my year. Finally, thanks to Gary Brown for his comments and suggestions. The above-mentioned people deserve some credit for the good parts of this paper; the author, however, is solely responsible for any errors in fact or interpretation.



## 8

# Early Navajo Occupation West of the Chuska Mountains

Dennis Gilpin

## Introduction

Studies of the early Navajo migration and adaptation to the region west of the Chuska Mountains in northeastern Arizona (Figure 8.1) have been far fewer than for the Dinétah and northwestern New Mexico. Native American traditional histories and Euroamerican documentary sources suggest that the Navajo colonized the region in the seventeenth century. What few archaeological data exist indicate that by the 1760s, the Navajo west of the Chuskas were constructing pueblitos, living in large villages, practicing herding and agriculture, and creating rock art identical to that of the Dinétah. Thus, the western Navajo have a longer history in the region than is often recognized, and participated in pan-Navajo cultural changes. Archaeological research has only begun to document the early Navajo use of the region. This paper provides a summary of the current state of western Navajo archaeology and suggests avenues for future research.

## Navajo Traditional History

Navajo traditional history provides evidence that the area west of the Chuskas was known to the Navajo and used by them at least as early as the Gobernador phase

(ca. A.D. 1700-1775). Hopis fleeing the destruction of Awatovi in 1700 are said to have moved to Canyon de Chelly to live with the resident Navajo (Brugge 1972b:95). The Navajo Taachii'nii Clan is said to be descended from some of the survivors of the destruction of Awatovi who settled at Tachii, a spring at the eastern edge of Black Mesa (Brugge 1974:29).

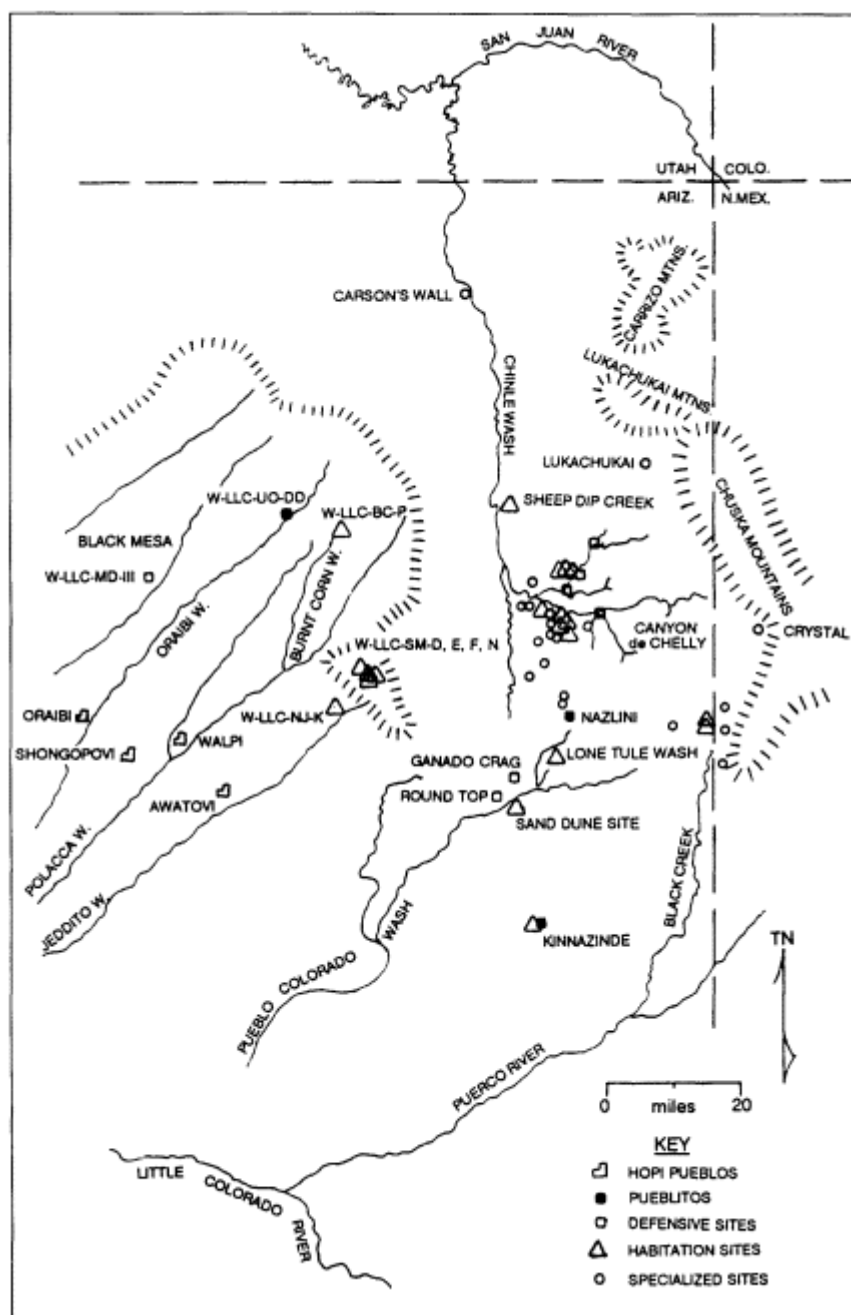


Figure 8.1.  
Locations of eighteenth-century Navajo sites west of the Chuska Mountains.

Depictions of supernaturals and masks in the rock art of Dinétah, along with actual masks and ceremonial paraphernalia recovered from archaeological sites, indicate that Navajo religion had largely crystallized by the 1700s. In stories recounting traditional Navajo history and justifying the different chants, different places in the Navajo country are mentioned. The Emergence (Upward Reaching Way), the first use of the Earth Surface World and the birth of Changing Woman (Blessingway), and the Hero Twins' battles with monsters (Monster Way and Upward Reaching Way) all take place primarily in Dinétah. The Pueblo War (described in the Enemy Way, Mountain Way, and Beauty Way) occurs in areas as far west as the Bears Ears, Ute Mountain, and the Abajo Mountains in Utah, and Canyon de Chelly and Round Rock in Arizona. It is important to note, however, that other changes occurred later. Brugge (1963) suggests that the Blessingway was introduced between 1775 and 1800 to organize the various ceremonies into a single system. Luckert (1977) reports that a new version of Enemyway was developed by the Navajos hiding beyond Navajo Mountain after the Carson Campaign (1863). According to Luckert (1977:44,112), some events believed by the eastern Navajo to have occurred in Dinétah are attributed to more western locations by the western Navajo. The location of Streams-Crossing-Each-Other, for example, is said to be where the Pine River joins the San Juan River according to eastern Navajo, but some western Navajos locate it at the junction of the San Juan River and the Colorado River. W. W. Hill (1938:48-49) provides ethnographic data that settlement of the

Canyon de Chelly region began in Canyon de Chelly and spread to Canyon del Muerto. Brugge (1974) presents Navajo oral history about a Taachii'nii man named Jihaal (*Jiʔaal*) who is said to have been associated with eighteenth-century sites on the southern Defiance Plateau, including Nazlini Pueblito, Kinnazinde Pueblito, Ganado Crag, and the Sand Dune Site. Moreover, Jihaal apparently constructed an antelope corral south of Jeddito Mesa. Benally et al. (1982:99) list several Navajos by name who were born in the area around Cedar Mesa in Utah between 1800 and 1835. There is ample ethnographic evidence, therefore, to indicate that the Navajo were present in the area by at least the mid-1700s.

### Documentary History

Some historical documentation suggests that the Navajo were living west of the Chuskas at least as early as the seventeenth century. E. K. Reed (1941:487) speculates that the Querechos in the Hopi country mentioned by Luxan in 1583 may have been ancestors of the Navajo. Benally et al.

(1982:83) interpret a 1655 map by Governor Diego de Penalosa as indicating that Navajos were living on Black Mesa and north of the San Francisco Mountains. Jemez Indians fleeing the Reconquest went first to the Hopi village of Sichomovi and finally settled with Navajos who were already living at Canyon de Chelly (Van Valkenburgh 1941:146). E. K. Reed (1941:487) cites Cuervo y Valdes as stating that in 1706, the Navajo occupied the area including Hopi and extending as far west as the Colorado River. If true, this places the Navajo throughout most of the current Navajo Nation at the beginning of the eighteenth century.

The earliest documentary reference to Navajo settlement in the Canyon de Chelly area is Miera y Pacheco's map of 1778 (see Schaafsma, this volume, Figure 2.1), which shows the "Sierra de Chegui" and illustrates three pairs of hogans on each side of the "Chegui" wash (Bolton 1950; James 1976:14; Wheat 1957). In 1785, Navajos were reported to be practicing agriculture beside the stream in Canyon de Chelly (Twitchell 1914, no. 1792, as cited by Hester 1962b:131). In 1786, the Canyon de Chelly Navajo were recognized as one of five major Navajo bands (Bartlett 1932:31; A. B. Thomas 1932:53), and in 1796 were one of ten major communities (Matson and Schroeder 1957:356; see Towner and Dean, this volume). Farther west, Dominguez and Escalante reported Cosninos (Havasupais) and Paiutes, but no Navajos, in their 1776 journey from the Crossing of the Fathers (on the Colorado River below its confluence with the San Juan River) to Hopi (Bolton 1950). In 1823, however, the Vizcarra Expedition found both

Navajos and Paiutes living in the area north of Hopi and south of the San Juan River (Brugge 1964). Near Big Mountain, the Navajos had fortified a mesa that may be site W-LLC-MD-III, recorded by the Navajo Land Claim researchers (Brugge 1964).

### History of Archaeological Research

The earliest archaeological studies of the Navajo can be attributed to Victor and Cosmos Mindeleff, who from 1881 to about 1894 conducted research on aboriginal architecture in the Southwest. The Mindeleffs worked for the Bureau of American Ethnology of the Smithsonian Institution collecting architectural data for the production of scale models that were exhibited at world fairs. Cosmos published a monograph on Navajo dwellings (C. Mindeleff 1898), describing the function and nomenclature for many architectural elements in both habitation and ceremonial hogans. Ironically, though, the Mindeleffs failed to recognize the Navajo origin of Kinnazinde (NA1018), which they recorded in 1883, believing it to be a field house of the prehistoric ruin of Kin Tiel (Wide

Ruins)(V. Mindeleff 1891). Fewkes (1898, 1904) also visited Kinnazinde and interpreted it as a prehistoric site.

Albert Reagan, an Indian Service employee with a strong interest in archaeology, worked on the Navajo Reservation from 1918 to 1928 and reported on Kinnazinde (1928a:22-23; 1928b:346, 359). Reagan was aware of Fewkes's work at the site and of his contention that the site was a summer farm for people from Kintiel. Reagan, however, suggested that

the pottery found does not bear out this conclusion... .  
Thirty per cent of the sherds obtained are of three-colored, yellow-buff ware and thirteen per cent is red ware and nothing like such a per cent of these wares were found at Kintiel. Moreover, the buff ware has a very modern appearance... . The pottery, on the whole has the Zunian slant. Moreover, the buff ware has more the appearance of modern Zuni pottery than that of the prehistoric villages. (1928a:23)

Reagan was correct in assigning a historic period date to the site, but still did not recognize its Navajo origin.

The rock art site of Carson's Wall, northwest of Rock Point, was investigated by Samuel Guernsey, possibly as early as his first visit to Ford House in 1915 (Kidder and Guernsey 1919), but certainly in 1916 when he excavated at Ford House (Guernsey 1931:44-45, Plates 21 and 37). Noel Morss visited the site in 1925 during his survey of the middle Chinle, and was the first to name it Carson's Wall (1927:10, 19, Plate IC). Along with the rock art in Canyon de Chelly, it is among the earliest recorded Navajo rock art sites west of the



Chuskas and contains elements similar to those found in the Dinétah (P. Schaafsma 1980; Copeland and Rogers, this volume).

In 1925, Earl Morris collected samples of Navajo textiles from Massacre Cave in Canyon del Muerto, where more than a hundred Navajos were killed by Spanish troops in 1805 (Grant 1978:142). These textiles compose the largest collection of early Navajo weaving from west of the Chuskas, although earlier Navajo textiles are known (a cave burial in the Canyon de Chelly area, dating from the late 1700s, contained a blue wool shirt, a manta-shaped blanket, a manta, and woven garters [Amsden 1949:98, plate 63; Kent 1985]; a burial in the Canyon de Chelly area dating to about 1800 contained a woman's shoulder blanket [Kent 1966: 52-54, 1985:57-60]).

In 1942, Wesley Hurt (1942) reported on two hogan clusters on the rim of Canyon de Chelly above Spider Rock. One site contained three hogans that were tree-ring dated by Harold Gladwin to 1758. The second site contained two hogans dated by Gladwin to 1770. For many years,

these sites were cited as the best evidence for eighteenth-century Navajo occupation of Canyon de Chelly. In 1967, however, David Brugge argued that the revised dates for these hogans (Bannister et al. 1966a) indicate they were constructed in the mid-1800s, a date more in accord with the condition of the hogans and the associated artifacts (Brugge 1967). (It should be noted that some Gobernador Polychrome was associated with a nearby undated hogan.)

From 1945 to 1951, David De Harport conducted an archaeological survey of Canyon de Chelly and Canyon del Muerto for his doctoral research at Harvard, recording 369 sites of all types and periods (De Harport 1951, 1953, 1959; Grant 1978:147-48). De Harport recorded a number of sites with both Pueblo and Navajo ceramics and interpreted the ceramics as evidence of double occupation. Don Morris (1986:22), however, feels that most of these sites are Navajo, and specifically mentions site CDC 232, which was photographed in use in the late nineteenth century but has been tree-ring dated to the late 1700s.

Research for the Navajo Land Claim during the 1950s and 1960s resulted in the recording of a number of early Navajo sites, but focused on lands outside the Navajo Indian Reservation. In the west, the Hopi Indian Reservation was an area of particular interest. The land claim researchers recorded large numbers of sites in the region, collecting tree-ring samples that were used to date many of the sites, including several of the western pueblitos. Brugge, especially, wrote a great deal about the early Navajo based on the land claims data, and *The*

*Navajo Exodus* (Brugge 1972b) is a key source. In his 1974 dissertation, Meade Kemrer analyzed the Navajo Land Claim data on Navajo use of the 1880 Hopi Reservation. He reported a few cutting dates ranging between 1703 and 1729, but found no evidence for site construction between 1730 and 1750. A few sites were occupied after 1750, but continuous occupation seems to have begun with two surges in construction, one from 1807 to 1812 and the other from 1815 to 1816 (1974:128).

Navajo Reservoir research in the late 1950s and 1960s affected Navajo research in the west, particularly Hester's reconstruction (1962a) of Navajo migrations, which suggested that the Navajos colonized the Defiance Plateau around Canyon de Chelly about A.D. 1650 and migrated as far west as Black Mesa by 1700.

Arizona State University conducted archaeological field schools on the Navajo Reservation during the 1960s, surveying and excavating in the Black Creek Valley, on Defiance Plateau, and in Chinle Valley. Carson's Wall was perhaps the most significant Navajo site they recorded (Lofton 1974).

In research for his master's thesis, Thomas Lee (1966) conducted a reconnaissance of the southern Navajo Indian Reservation from Tohatchi to the Pueblo Colorado Wash, recording 799 archaeological sites in the summer of 1961. Twenty-two sites along Black Creek, nine sites near Kinlichee, and fifteen sites along Nazlini Wash were dated to the historic period (Lee 1966:78, Table 7). Most of the sites along Nazlini Wash were located on the western slope of the Defiance Plateau just south of the rim of Canyon de Chelly. Lee was not able to date the Navajo sites more precisely because he classified all Navajo graywares as Navajo Utility, even those associated with Gobernador Polychrome, and did not distinguish between Dinétah Gray, Navajo Gray, and Pinyon Gray. On September 19, 1994, however, Dennis Gilpin and Kelley Hays-Gilpin examined Lee's collections at the Arizona State Museum and identified nine sites along Black Creek, two sites at Kinlichee, and thirteen sites along Nazlini Wash that might date to the eighteenth century based on the presence of Dinétah Gray; Dinétah Gray, Transitional Variety; Payupki Polychrome; or other early tradewares.

In 1972, prior to highway construction, the Museum of Northern Arizona conducted data recovery at one protohistoric Hopi site and eighteen historic Navajo sites on the rim of Canyon del Muerto (James 1976; James and Lindsay 1973). Four of the Navajo sites (NA9712, NA11,367, NA11,368, and NA11,372) were thought to date prior to A.D. 1800. Six sites (NA11,370, NA9713, NA11,374, NA11,375, NA11,377, and NA11,362) dated from 1813 to the time

of the Carson Campaign (1863-1864). The remaining sites postdated the 1868 return from Fort Sumner.

A sample survey of Canyon del Muerto in Canyon de Chelly National Monument was conducted by the National Park Service in the 1970s (Fall et al. 1981). The data collected during the survey were used by Magers (1976) to test a model of changing settlement patterns and subsistence practices. She suggests that after the initial occupation of Canyon del Muerto in the 1700s, increased warfare in the nineteenth century necessitated a shift to defensive settlement locations (Magers 1976:182-85). Brugge (1972a:3-6) notes, however, that such sites were effective against Ute enemies, but ineffective against Europeans.

Beginning about 1980 and continuing into the 1990s, the Branch of Forestry of the Bureau of Indian Affairs and the Navajo Forest Products Industries sponsored archaeological surveys of the Navajo Nation Forest in the Chuska Mountains, Lukachukai Mountains, and on the Defiance Plateau. Research through 1984 is summarized in Kemrer and Lord (1984). Most of the sites recorded have been historic Navajo, but the

overwhelming majority date to the twentieth century. Uneven quality of survey, recording, and reporting of results makes the forestry data difficult to use and evaluate.

In 1981, 1983, and 1985, the National Park Service conducted test excavations at the Sand Dune Site, an eighteenth-century Navajo habitation at Hubbell Trading Post National Historic Site at Ganado (Adams 1982; Bradford 1987; McKenna 1987). The site was then completely excavated in 1987 (Jones 1988).

In 1984, Joseph K. Anderson (1984) of the Navajo Nation Cultural Resource Management Program conducted an archaeological survey of a proposed power line right-of-way near Canyon de Chelly and recorded six sites possibly dating prior to A.D. 1800 (AZ-I-60-1, 7, 10, 11, 12, and 15 [NNCRMP]). Five of these were probably habitations; site AZ-I-60-7 was a scatter of Navajo Painted sherds and fire-cracked rock. Elizabeth Miksa and Michael Yeatts of the Navajo Nation Archaeology Department conducted archaeological surveys for extensions of this power line and also recorded early Navajo sites (Miksa 1987; Yeatts 1990). In a 1986 survey for a power line, Anderson (1986) recorded an early Navajo site south of Many Farms Lake. This site was later re-recorded by Gilpin (1992). In 1988, Statistical Research, Inc., of Tucson, excavated an eighteenth-century Navajo summer camp at Lukachukai (Ayres 1989:29).

Despite these examples, contract archaeology projects west of the Chuska Mountains have only rarely recorded eighteenth-century Navajo sites. Pre-Fort

Sumner era sites, however, are relatively common throughout the western area, including sites in Canyon de Chelly, on the Defiance Plateau, and on Black Mesa. Unfortunately, most of the sites that have been recorded have not been analyzed.

### Site Types and Settlement Patterns

Few studies have been done on early Navajo site types and settlement patterns west of the Chuska Mountains. Lee (1966) classified Navajo sites as fortified crags, hogan depressions, forked-pole hogans, cribbed-log hogans, masonry hogans, stock corrals, storage bins, and check dams. Kemrer (1974:117-19) classified early Navajo sites on the 1880 Hopi Reservation into three types: (1) habitations, (2) summer or warm-weather settlements, and (3) game traps. James (1976) provides the most detailed excavation data on a range of early Navajo sites west of the Chuska Mountains, but even in his report most of the sites described are habitations. The paucity of studies on early Navajo site types and settlement patterns for the region underscores the problem of identifying early Navajo

sites, especially nonhabitation sites. In the following discussion, the range of early Navajo sites in the region west of the Chuska Mountains is considered in terms of four site types: (1) pueblitos and other defensive sites, (2) habitations, (3) limited activity sites, and (4) rock art sites.

### *Pueblitos and Defensive Sites*

Only a few pueblitos have been reported west of the Chuska Mountains (see Towner, this volume). Brugge (1972a) mentions Nazlini and Kinnazinde. James (1976:60) makes a distinction between pueblitos (Nazlini and Kinnazinde) with masonry buildings, and fortresses (Spider Rock Fortress, Black Rock Fortress, and Massacre Cave), which are merely defensible locations. James states that only fortresses are present in Canyon de Chelly and Canyon del Muerto and that Nazlini is the nearest pueblito. Fall et al. (1981) identified five, possibly six defensive sites in the Canyon de Chelly area: CDM 19 (Black Rock Fortress), CDM 126 (Del Muerto Navajo Fortress), CDM 130 (White Lady Fortress), CDM 176 (Massacre Cave), MCC 8, and possibly CDM 42.

Kinnazinde (*Kin Náázíní*, or Lone Towering House [R. W. Young and Morgan 1980:495]) is the best documented pueblito west of the Chuskas. This site was first recorded in 1883 by the Mindeleffs of the Smithsonian Institution, Bureau of American Ethnology (Powell 1887:xxiv-xxv; V. Mindeleff 1891) who thought it was a field house of Kin Tiel (Wide Ruins). Mindeleff (1891:Plate LXVI; and photograph Arizona 367a in the National Anthropological Archives,



Smithsonian Institution) shows it as a boulder-top structure two stories tall on the north side with two-story sections extending partially into the east and west walls (Figure 8.2). It was one story tall on most of the east and west wall and a full story or more on the south wall. A largely intact, two-story room, missing only its roof, was present on the east side of the boulder. Fewkes (1898:434; 1904:134) also thought that Kinnazinde was a prehistoric site. Reagan's 1928 photograph of the site shows Kinnazinde from the west looking east, and the boulder-side room cannot be seen (Reagan 1928b:359). In another article, Reagan (1928a:22-23) describes the site as a rectangular ruin on a rocky ledge, suggesting that by the time he visited the site, the boulder-side room had been destroyed. Reagan (1928a:23) collected twenty-three decorated sherds from the site, 30 percent of which were "three-colored, yellow-buff ware" with "drawings of birds and insects." He felt these ceramics were historic and probably related to Zuni pottery. The Museum of Northern Arizona (MNA) recorded Kinnazinde three times, assigning it the numbers NA1018, NA2383, and NA5664 (Brugge 1972b:9). The MNA collection



Figure 8.2.

Photograph of Kinnazinde taken in the late 1800s.  
(Reproduced courtesy of Smithsonian Institution.)

from NA1018 comprises forty-five sherds (Brugge 1972b:9). The site was examined during the Navajo Land Claims research and given the designation S-MLC-LP-L (Brugge 1972b:9). Brugge (1972b:9) reported that the site was two and a half stories tall with loop holes, rounded corners, and vigas embedded in the walls. He also noted that it was associated with “3 forked-pole hogans, a stone hogan, 2 burned hogans, and a corral” (Brugge 1972b:9). Land claim researchers collected 170 sherds from the site. Fifteen tree-ring dates from the site included eight cutting dates of 1759 and one of 1760 (Bannister et al. 1966b:24; Douglass 1935:52; Smiley 1951, No. 70c). According to traditional history the site was associated with the Ma’iideshgizhnii (Coyote) Clan, which is descended from Jemez. Michael J. Andrews rerecorded the pueblito in 1982 (Andrews 1982), and Gilpin prepared a sketch map of the pueblito and associated habitations in 1990 (Figure 8.3).

The overall site of Kinnazinde consists of the pueblito, one stone hogan ring, five ash concentrations, three rock piles (including one with two upright slabs on its north side), one rock alignment, and one concentration of juniper branches (possibly natural, possibly a hogan). The boulder-top room measures 4 m by 8 m and originally stood as much as 5 m tall. It had a doorway in the northern wall and a sealed doorway on the western wall. The room on the eastern side of the boulder measured approximately 4 m by 4 m and was as much as 5 m tall. Artifacts associated

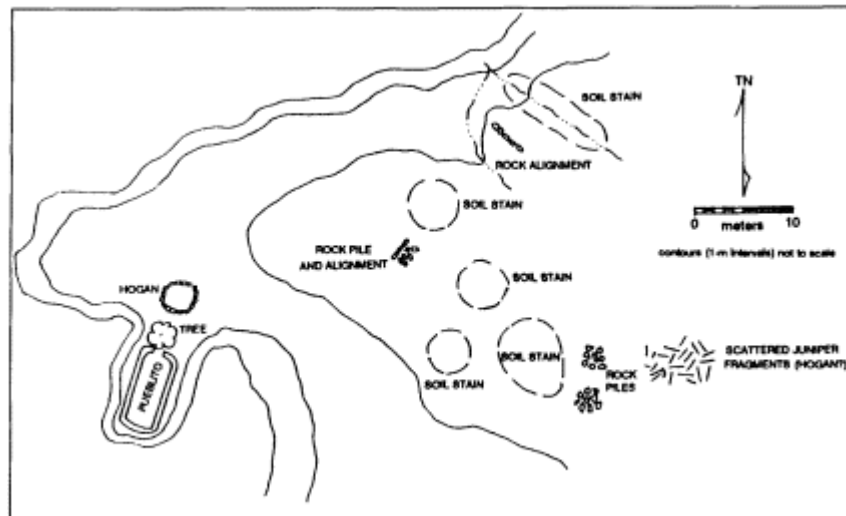


Figure 8.3.

Sketch map of Kinnazinde pueblito and surrounding features.

with the site include Dinétah Gray and Gobernador Polychrome ceramics, flaked stone of petrified wood and chert (including one piece of Washington Pass chert), and large mammal bones.

Sadly, in recent years Kinnazinde has become a popular party spot for local residents who have extensively vandalized the site. Since 1989, Larry Benallie, Jr., of the Navajo Nation Archaeology Department has been working in the Wide Ruins-Klagetoh area and has documented much of this destruction in reports to the Navajo Tribal Rangers. On February 27, 1990, he found that the notched log ladder on the site had been stolen. On June 19, 1990, he noted that the walled-up doorway on the west side of the pueblito had been pushed out, and the lintel of this doorway, which had been sampled for tree-ring dating, was missing. On June 26, 1990, he discovered that rock from within the pueblito had been thrown to the ground below the pueblito. On February 27, 1992, during an inspection of the site with a tribal

ranger, it was noted that the western wall had been kicked down to the level of the fill. More recently, a photograph of the site (Klesert 1992:72) shows that the lintel over the doorway in the northern wall, which had been intact as recently as 1990, has been destroyed.

Nazlini Pueblito has been described by Brugge (1972b:9-10) as having five ground-floor rooms and two second-story rooms associated with two nearby hogans, one of which is in a rock-shelter and both of which are small and poorly preserved. This site was recorded by Thomas Lee (1966) as AZ K:3:51 (ASM) and by the Navajo Land Claim researchers as

W-CH-UC-I. Tree-ring dates cluster between 1759 and 1761 (Brugge 1972b:9-10; Stokes and Smiley 1964:22), suggesting that the structure was probably built in a single episode in the summer or fall of 1761. The land claims researchers collected 177 sherds from the site, including 81 Dinétah Gray, Transitional Variety (Brugge 1972b:10).

Ganado Crag is located northwest of Ganado on a small butte connected to Ganado Mesa by a narrow saddle. Access from the saddle to the top of the butte is blocked by a defensive wall of stone, and the top of the butte contains eight forked-stick hogans (Brugge 1966b; 1972b:11). Eight tree-ring dates are reported (Stokes and Smiley 1966:6), six of which range between 1757 and 1764. The Navajo Land Claim researchers designated this site S-MLC-LP-O and collected fourteen sherds, ten of which were Dinétah Gray Transitional Variety (Brugge 1972b:11). The Navajo name for the site is Taalagodijool (“Small Round Place Where a Sing Was Held”) because a Ye’ibichei was held there during a war with other tribes (Brugge 1966b; 1972b:11). The site is reported to have been successfully defended from both the Ute and Comanche (Brugge 1972b:11).

Round Top, near Ganado, is another possible defensive site. Brugge’s Navajo consultants reported that “defensive works” were present there at one time and that the site is associated with Jihaal (1974).

Black Rock Fortress (CDM 19) is located at the junction of Canyon del Muerto and Black Rock Canyon. The site contains forty-nine hogans, twenty-

two defensive walls, six storage facilities, a possible corral, and a reservoir (Figure 8.4). Eighteenth-century, noncutting tree-ring dates were obtained from each of three log ladders located on the trail to the site. During the Carson Campaign (1863-1864) some three hundred people took refuge there from October to March (Fall et al. 1981:212).

Del Muerto Fortress and White Lady Fortress, also in Canyon de Chelly National Monument, are much smaller than Black Rock Fortress. Del Muerto Fortress (CDM 126) consists of ten defensive walls located on either side of and within a crack that provides access to the point of a mesa (Fall et al. 1981: 209). White Lady Fortress (CDM 130) consists of four defensive walls flanking an access crack to the top of a pinnacle that contains two walled alcoves (Fall et al. 1981:209). Spider Rock, a defensive site for which I have no description, dates between about 1774 and 1780, based on noncutting tree-ring dates (James 1976:60).

Several of the defensive sites are fortified rock shelters. Site MCC 8 is a 30m-long rock shelter containing nine masonry hogans and having walls running across most of its length (Fall et al. 1981:2.2). Site CDM 42 is a rock shelter containing five storage bins (Fall et al. 1981:212). Massacre Cave (CDM 176), which is not fortified, was last used for refuge in 1805

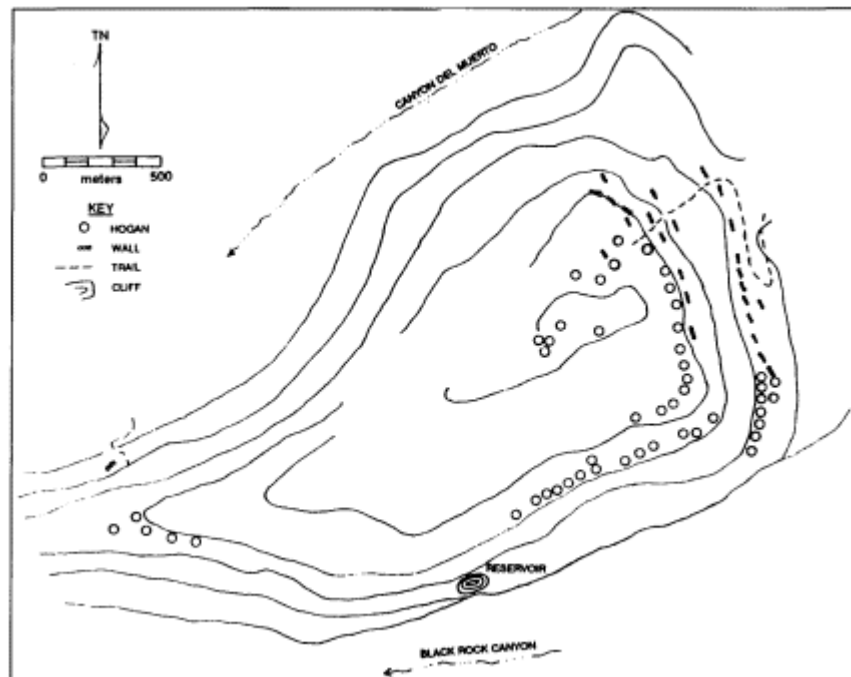


Figure 8.4.

Map of Black Rock Navajo Fortress (after Fall et al. 1981).

when at least seventy Navajos were killed there by the Narbona Expedition.

Stokes and Smiley (1964:22) report a single tree-ring date of 1790+incG from a fortified crag with at least three associated hogans (site W-LLC-UO-DD) on upper Oraibi Wash. The only other tree-ring date from this site (from one of the associated hogans) is 1873+inc. Site WLLC-MD-III, at Big Mountain, consists of a fortified crag, an eagle crag, two hogans, a corral, a lamb pen, and a storage chamber. This site has not been dated by either dendrochronology or artifact cross dating, but it may be the site seen by the Vizcarra Expedition in 1823 (Brugge 1964).

### *Habitations*

Eighteenth-century Navajo habitation sites west of the



Chuska Mountains, typically evident as hogans or hogan clusters, are mostly concentrated on the Defiance Plateau, particularly in the area around Canyon de Chelly and Canyon del Muerto (Fall et al. 1981; James 1976). Perhaps the largest early Navajo habitation west of the Chuskas is the one around Black Rock

Fortress. Kinnazinde has a cluster of six hogans around it, and Ganado Crag contains eight hogans. Other habitation sites have been reported in Black Creek Valley, Kin Lichee, Nazlini (Lee 1966), the Middle Chinle Valley, and Black Mesa (Correll 1976:24).

Three of the four pre-1800 Navajo sites on Canyon del Muerto rim (James 1976) were habitations. The largest of these (NA11,367) contained ten hogans, two fire pits, one cist, eight ash piles, and one sweathouse. Site NA11,368 has three hogans and three ash piles. Site NA11,372 has two hogans and two ash piles. All of these were located in the open. Brugge (1972b:5) also notes that the earliest sites in the region were built in the open.

The densest concentration of early Navajo sites (habitations and associated limited-activity sites) is located on the western slopes of the Defiance Plateau and the south rim of Canyon de Chelly. These sites have been recorded in a series of surveys by Anderson (1984), Lee (1966), Miksa (1987), and Yeatts (1990). Lee (1966) recorded one habitation site in this cluster: AZ E:15:24 (ASM), consisting of a cribbed-log hogan, a stone hogan, and a ceramic scatter that included seven Dinétah Gray, Transitional Variety, and three Payupki Polychrome sherds. Site AZ-I-6012 (NNCRMP), recorded by Anderson (1984), consisted of four forkedstick hogans ranging from 3 to 5 m in diameter. Four other sites (AZ-I-601, AZ-I-60-10, AZ-I-60-11, and AZ-I-60-15 [NNCRMP]) recorded by Anderson also have evidence of dwellings. Site AZ-I-60-11 is described as a structure, a slab-lined hearth, rock

concentrations, and Dinétah Gray pottery. Three of the sites (AZ-I-60-1, AZ-I-60-10, and AZ-I-60-15) consisted of from one to six charcoal stains that were the remains of structures or middens. A slab-lined hearth was present on site AZ-I-60-1. Dinétah Gray was present on all five of the habitation sites. At site AZ-I-60-1, some 15 sherds of Dinétah Gray and 50 sherds of Eastern Pueblo ceramics were observed. Gobernador Polychrome was observed on Site AZ-I-60-15. Also south of Canyon de Chelly, Yeatts (1990) recorded an early Navajo habitation site (AZ-I-61-6) consisting of rubble areas and middens. At site AZ-I-61-33, Yeatts (1990) observed five Gobernador Polychrome sherds on a site with a hogan, two ash piles, and 1930s artifacts.

The most thoroughly excavated eighteenth-century Navajo site is the Sand Dune Site (AZ:K:6:11 [ASM]) at Hubbell Trading Post National Monument. This site was being destroyed by erosion and was therefore completely excavated. Test excavations were conducted at this site in 1981 (Adams 1982), 1983, and 1985 (Bradford 1987; McKenna 1987), and the site was completely excavated in 1987 (Jones 1988). Forty-nine features associated with the Navajo component of the site have been identified and

excavated, including three shallow pit structures, five occupation surfaces (two of which are probably dwellings, one of which is a possible ramada, and two of which probably represent puddles), one post, twelve postholes, six hearths, one slab-lined hearth, one fire pit, one cooking pit, four pits of indeterminate function, five ash pits, one ash dump, four ash stains, four rock concentrations, and one deposit of sheep dung. Two of the pit structures were irregularly shaped, ranging from 3 m to 4.5 m in diameter, and had been excavated approximately 50 cm below the occupational ground surface and covered with a superstructure. One of these pit structures had no interior features; the other contained a hearth. The third pit structure was approximately 2 m in diameter, had been excavated approximately 50 cm below occupational ground surface, and had exterior postholes. The fourth and fifth possible dwellings on the site consisted of two superimposed occupation surfaces, 3 m to 3.5 m in diameter, each with a hearth. The possible ramada consisted of an occupational surface measuring 3.75 m by 3.85 m and contained a slab-lined hearth, slabs, and a posthole. Five features (a hearth, three postholes, and a deposit of sheep dung) may be the remains of a stock pen. All collections from the site have not been analyzed, but artifacts from the 1987 excavations include 638 sherds, 232 pieces of flaked stone, thirty-eight pieces of ground stone, seven mineral or pigment samples, three olivella shells, and 1,678 bones (Jones 1988). McKenna (1987) analyzed the ceramics from the 1981, 1983, and 1985 excavations and found that 54.2 percent of the sherds were Dinétah Gray, Transitional

Variety, and 2.8 percent were Hopi yellowware associated with the Navajo component. The remaining sherds were prehistoric; Gobernador Polychrome was not reported from the site. Flaked stone has not been described, except for a cross of pink chert from one of the pit structures (Jones 1988). Fauna represented in the bone assemblage include sheep, goat, cattle, and horse or mule (Jones 1988). Carbonized corncobs have also been recovered, but have not been dated (Jones 1988). Four charcoal samples collected during the 1985 excavations were analyzed, returning dates between 220 and 420 BP (uncalibrated) (Jones 1988:6; McKenna 1987:8-9, Table 4). Because of the predominance of Dinétah Gray, Transitional Variety, McKenna (1987) dates the Sand Dune site 1750-1800. Brugge (1974) presents Navajo oral traditions indicating that a Navajo named Jihaal lived at the site during this period. Jihaal is also associated with Kinnazinde, Ganado Crag, Nazlini Pueblito, and Round Top, and is said to have participated in the construction of an antelope corral south of Jeddito Mesa.

Lone Tule Wash, an eighteenth-century Navajo site north of the prehistoric site of Kin Lichee, has never been recorded, but has been partially

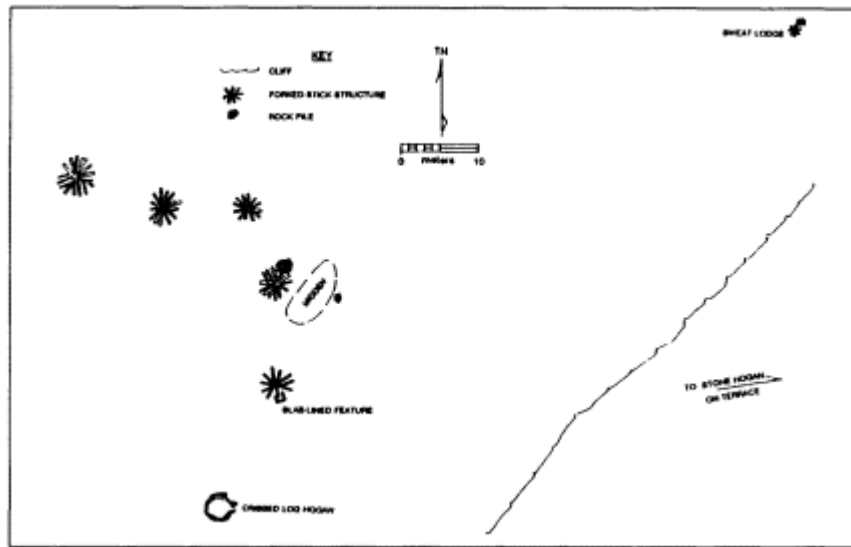


Figure 8.5.  
Map of Lone Tule Wash site.

mapped by Gilpin (Figure 8.5). This site consists of the collapsed remains of five forked-stick hogans, one cribbed-log hogan, one stone hogan, one sweat lodge, and an artifact scatter that includes Dinétah Gray and Gobernador Polychrome ceramics, projectile points, and flaked stone debitage. This site is concealed in pinyon-juniper woodland on a mesa top above a valley floor that is still farmed.

The Sheep Dip Creek site (AZ-I-45- 11 [NTM]), located south of Many Farms Lake, is significant because it provides evidence of Gobernador Phase Navajo use of a treeless region that would not normally be investigated by researchers looking for dendrochronologically datable sites. The Sheep Dip Creek site (Anderson 1986; Gilpin 1992) consists of two slab-lined dwelling foundations, a cluster of six fragments of tabular sandstone, a cluster of seventy-one sherds and one flake fragment; a cluster of twenty-nine

sherds, and a scatter of thirteen additional sherds (Figure 8.6). The two hogan rings are each about 4 m in diameter and are composed of forty and eighty pieces, respectively, of tabular and blocky sandstone, including upright slabs. Ceramics are predominantly Dinétah Gray, although one sherd of Gobernador Polychrome and several prehistoric sherds were also observed. A flake fragment is the only other artifact present on the surface.

Small Klagetoh (NA1017), which is located 1.6 km west of Kinnazinde, is a possible early Navajo habitation. The Third Beam Expedition of 1929 (Haury and Hargrave 1931) collected beams from this site that

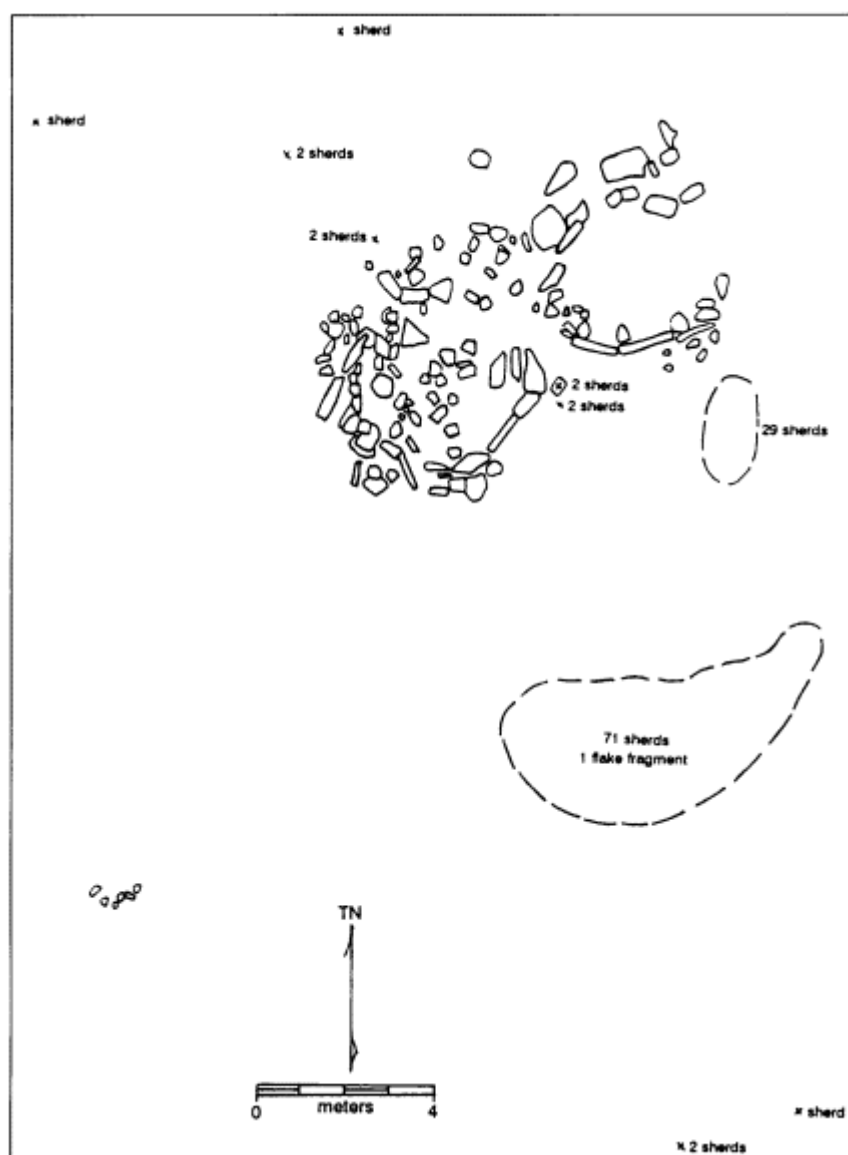


Figure 8.6.

Map of Sheep Dip Creek site (AZ-I-45-11 [NTM]).

were dated to A.D. 1126 by Douglass (1935, 1938) and T. L. Smiley (1951). Bannister et al. (1966b:30), however, reanalyzed the beams from the site and published two dates (1699vv and 1743vv) that suggest the site is Navajo. The Museum of Northern Arizona's sherd collection from the



site includes Sosi Black-on-white, Escavada Black-on-white, Gray-brown Gallup/Chaco Black-on-white, Wingate Black-on-red, Wingate Polychrome, and St. Johns Polychrome, consistent with the A.D. 1126 date.

Correll (1976:24) mentions that seven eighteenth-century tree-ring dates were recovered from Navajo structures in the Black Creek Valley. Lee (1966) recorded two habitation sites in the Black Creek Valley that may date to the eighteenth century. Site AZ K:4:28 (ASM) had two hogans, and the ceramic assemblage included thirteen Dinétah Gray sherds, thirty-seven Navajo Gray sherds, and one unidentifiable polychrome sherd. Site AZ K:4:29 (ASM) had at least four hogans, and Lee identified Gobernador Polychrome on the site, although the 1994 inspection of collections from this site identified only post-1800 ceramics (thirty-five Navajo Gray, one Pinyon Gray, and fifteen Zuni Polychrome).

Correll (1976:24) lists sixty-seven eighteenth-century tree-ring dates from Navajo structures on Black Mesa, including Black Mountain, Balakai Mesa, Salina Springs, Low Mountain, Pinyon, Keams Canyon, Tse Chizzi, Forest Lake, and the upper reaches of Dinnebito, Oraibi, Polacca, Jeddito, and Burnt Corn washes. Not all of these dates represent construction episodes; many are probably old beams used in later hogans. The many eighteenth-century dates in Stokes and Smiley (1964) generally do not cluster by feature or site. Only one or two beams have been dated for many sites. For other sites, the dates from a single feature range from the eighteenth to the nineteenth

century, suggesting that the feature was constructed in the nineteenth century using dead wood. At other sites, individual features may produce only eighteenth-century dates, but other features on the site date later. Thus, the tree-ring data need to be analyzed in conjunction with other data from the sites (including ceramics and architecture).

Brugge (1972b:II), who conducted much of the fieldwork for the Navajo Land Claim and who has direct familiarity with the Navajo sites that yielded the tree-ring samples, describes several sites on Black Mesa that he feels may have been occupied in the eighteenth century. Site WLLC-BC-P on upper Burnt Corn Wash consists of a “cribbed-log hogan, two-room log house, a ramada, a corral, and what was probably a threshing floor” (Brugge 1972b:11). Ceramics at the site include Dinétah Gray; Dinétah Gray, Transitional Variety; and Pinyon Gray. The two tree-ring dates from the site are 1765+G and 1798+inc (Stokes and Smiley 1964:18). Brugge suggests that Site W-LLC-NJ-K on northern Jeddito Wash and three sites in the vicinity of Salina Springs may also date to the eighteenth century. Collectively, these four sites contain three forked-stick hogans and six cribbed-log hogans.

### *Limited-Activity Sites*

Early Navajo limited-activity sites west of the Chuskas currently identified include a summer camp, sherds, areas, corrals, storage bins, a possible hunting camp, antelope corrals, and rock art. An eighteenth-century Navajo summer camp in the Lukachukai Valley has been excavated (Ayres 1989:29), but is not yet published. The Sheep Dip Creek site may be a seasonal field house.

Lee (1966) recorded two corrals possibly dating to the eighteenth century, one in the Black Creek Valley (AZ K:4:22 [ASM]) and the other (AZ K:3:48 [ASM]) near Nazlini Pueblito. Lee also recorded two storage bins (AZ K:14:11 [ASM] and AZ E:15:3 [ASM]) that may date to the eighteenth century on the western slope of the Defiance Plateau south of Canyon de Chelly.

A number of early Navajo artifact scatters have been reported, but the functions of these are unclear. On the south rim of Canyon de Chelly, interspersed among the habitation sites described above, are at least six artifact scatters possibly dating to the eighteenth century. Sites AZ E:14:13 (ASM), AZ E:15:6 (ASM), AZ E:15:23 (ASM), AZ E:15:26 (ASM) were all recorded by Lee (1966). Site AZ-I-59-8 (NNAD) is a scatter of Dinéah Gray and flaked stone (Miksa 1987), and site AZ-I-60-7 (NNCRMP) consists of Navajo Painted sherds and fire-cracked rock (Anderson 1984). Site AZ E:14:4 (ASM) is an artifact scatter located in Three Turkey Canyon (Lee 1966), AZ K:3:41 (ASM) is located near Nazlini Pueblito (Lee 1966), and AZ-P-4-9 (NNAD), recently recorded by Gilpin, is located in Beautiful

Valley. James (1976) excavated a pre-1800 Navajo site (NA9712) on Canyon del Muerto Rim that consisted of two hearths associated with eight sherds of Dinétah Gray pottery, nine sherds of Pinyon Gray pottery, three knives, two scrapers, twenty-three utilized flakes, one chopper, and eleven hammerstones. Lee recorded six sherd areas (AZ K:4:4 [ASM], AZ K:4:18 [ASM], AZ K:4:27 [ASM], AZ K:12:24 [ASM], AZ K:12:27 [ASM], and AZ K:12:29 [ASM]) in the Black Creek Valley. One of these (AZ K:4:18 [ASM]) was in a rock-shelter, Tlshini Alcove; site AZ K:4:27 (ASM) may be the same as site NA2334, an early Navajo sherd scatter in the site files of the Museum of Northern Arizona. An early Navajo limited-activity site (LA 68377) at the base of the Chuska Mountains above the Black Creek Valley near Crystal, New Mexico, was tested by the Museum of New Mexico prior to highway construction (Phillips 1989). It consisted of one burned storage pit or roasting pit, one hearth, eight Dinétah Gray sherds, and 128 flaked stone artifacts, including a small, triangular projectile point associated with the hearth.

Navajo game traps dating from the eighteenth century to 1870 were identified on the 1880 Hopi Reservation by Navajo Land Claim researchers. Tree-ring dating indicated that individual game traps or antelope corrals were used for two to forty years (Kemrer 1974:117). It is said that Jihaal had an antelope corral south of Jeddito.

In Dinétah, Marshall (1991) has identified similar limited-activity sites associated with larger sites such as pueblitos. Limited-activity sites on the northern Chaco Plateau (on the western frontier of Dinétah) dating to the Dinétah and Gobernador phases ranged from isolated sherds to clusters of hearths, ceramics, flaked stone, and fire-cracked rock to specialized antelope-butcherer sites (Gilpin 1993:211-17). Specialized sites of the Dinétah and Gobernador phases have been found in the Chuska Valley as well (Cronk 1982), evidence that the Navajo of Dinétah and the area west of the Chuska Mountains exploited vast catchments.

### *Rock Art Sites*

The rock art of Canyon de Chelly has been well studied (Grant 1978; P. Schaafsma 1980) and is not discussed here. Similarities between Dinétah and Canyon de Chelly rock art suggest strong cultural ties between the two areas (Schaafsma 1980).

A highly significant rock art site east of the Chuska Mountains that is not as well documented is Carson's Wall, on the west side of Chinle Wash north of Rock Point (Brugge 1966a). Carson's Wall is 700 m long and consists of two small mesas rising from the Chinle

Valley floodplain. Each of the mesas has a sheer sandstone cliff on its eastern side. Although the cliff on the eastern side of the northern mesa contains some petroglyphs, the most striking rock art is on the east-facing cliff of the southern mesa. This cliff is 205 to 300 m long. Anasazi petroglyphs include mountain sheep, anthropomorphs, geometric designs, and concentric circles. In one place is a line of twenty-eight mountain sheep, each of which has a circular depression ground into its body. Navajo petroglyphs include shield figures (one of which is 1.5 m tall), yeis, tracks, and horses. Most of the rock art is pecked and probably dates before the Carson Campaign.

Inscriptions at the site ("Navajo Expedition October 21st, 1860," "C.B. Brady 2nd Dragoons October 21st, 1860," and "Blas Lusero ano de 1860") indicate that the site was visited by members of Col. Edward Richard Sprigg Canby's Navajo Expedition of 1860 (Correll 1979, vol. 3:89). Brugge (personal communication, 1992) remembers the 1860 inscriptions as being on the northern part of the site. He also believes that the site was called La Encina Gorda (Fat Oak) by Canby's troops

and says that the date carved on the wall matches the date in expedition journals.

Archaeologist Samuel Guernsey visited the site, possibly as early as his first visit to Ford House in 1915 (Kidder and Guernsey 1919), but certainly in 1916 when he excavated at Ford House (Guernsey 1931:44-45, Plates 21 and 37). Based on his 1916 fieldwork at the site, Guernsey (1931:44-45) suggests the petroglyphs are Pueblo I, Pueblo III, Ute, Navajo, and historic. He mentions one inscription that reads "Navajo Expedition, October 21, 1860." His Plate 21 illustrates an Anasazi flute player and anthropomorph and Navajo shield figures, yeis, a person on horseback, a quadruped, a bird, and animal tracks.

Archaeologist Noel Morss visited the site in 1925 during his survey of the middle Chinle (Morss 1927:10, 19, Plate 1c). Morss is the first person to refer to the site as Carson's Wall, based on the 1860 inscriptions and his confusion about local history. Morss assigned the site number 20 and stated:

Carson's Wall. A quarter of a mile due north of Owl Canyon is a low smooth cliff suited to carving, which we called "Carson's Wall" from the circumstance of finding there the thinly scratched inscription, "Navajo Expedition, 1860." Here are a quantity of petroglyphs of all periods. The "ibex" type of mountain sheep is abundantly represented, herds in single file covering many yards of the rock. A number of pictures which by their subject matter must be Navajo are as carefully done as the best early work. Pictures of hook-nosed warriors with spears, bows and shields may be ancient but are probably early Navajo work. (Plate 1c) (1927:19)

Morss's Plate Ic illustrates the five-foot-tall Navajo shield figure.

The site was recorded again (as AZ E:2:5) in 1964 by the Arizona State University (ASU) archaeological field school, directed by Reynold Ruppé. Ruppé called the site Talking Rocks and took Brugge there for a brief visit (Brugge, personal communication, 1992). Brugge later discussed the site in a newspaper article and stated:

Horses range from the rather stiff style that appears in the Ute Raid Panel in Canyon del Muerto to the curvilinear style of modern Navajo art, and the Ye'ii figures range from the short, naturally proportioned type such as are found at some sites in the Dinétah to the extremely elongated types found in modern sand paintings. (1966a)

Lofton drew on Brugge's article as well as on ASU collections and field notes for her description of the site in her Master's thesis:



AZ E:2:5. Five of the sites classified as open sites are located on mesa tops. AZ E:2:5 and E:2:6 are associated with petroglyphs on nearby rocks. Those found at site E:2:5 have been described by David Brugge (1966a); they consist of numerous Anasazi and Navajo glyphs, horses, men on horses, yei figures, deer and lion tracks, a peculiar hunchbacked hook-nosed figure, motor vehicles, and other less certain motifs. The names of Blas Lucero and C.B. Brady, members of the 1860 Navajo Expedition, are discernible. (1974:30, 32)

The significance of Carson's Wall is that it suggests a large Navajo population in the middle Chinle well before the 1850s and indicates that they were using Navajo religious iconography also seen in Dinétah.

### Material Culture

James (1976) and the Sand Dune Site (Jones 1988; McKenna 1987) provide the most extensive information on early Navajo material culture west of the Chuska Mountains. Artifacts from the Sand Dune Site have not been completely analyzed, but some data are available on numbers and types of artifacts (Jones 1988; McKenna 1987). James (1976), however, does not provide any subsistence information (i.e., no faunal or botanical data).

Ceramics at early Navajo sites west of the Chuska Mountains include Gobernador Polychrome, Dinétah Gray, and, occasionally, Hopi and Zuni sherds. Lee (1966) found that imported ceramics on Navajo sites east of the summit of the Defiance Plateau were most likely to be Zuni-Acoma sherds, while sites west of the Defiance Plateau summit were most likely to have Hopi

ceramics. Gilpin and Hays-Gilpin found that Lee's collections from the Black Creek Valley contained 125 Navajo Grayware sherds, thirty Zuni sherds, and three Hopi sherds, while the collections from the Nazlini drainage contained 102 Navajo Grayware sherds, twenty-six Hopi sherds, and seven Zuni sherds. Fourteen of the Hopi sherds were Payupki Polychrome, a type manufactured between A.D. 1680 and 1780 (Wade and McChesney 1981). Several sites (AZ K:4:4 [ASM], AZ K:12:24 [ASM], AZ K:12:27 [ASM], and NA2334, all in the Black Creek Valley; AZ K:3:51 and AZ K:3:52, both designating Nazlini Pueblito) had a pottery, possibly Zuni, with gray paste, sand-and-sherd temper, a white interior, and a red exterior. Reinspection of Lee's collections thus confirms his observation of imported ceramics. Anderson (1984), however, observed approximately 150 Eastern Pueblo ceramics and only fifteen Dinétah Gray sherds on site AZ-I-60-1 [NNCRMP], a habitation site on the rim of

Canyon de Chelly. James (1976) found Gobernador Polychrome, Dinétah Gray, and Pinyon Gray at the early Navajo sites at Canyon del Muerto and also identified a locally produced polychrome. McKenna (1987) reported no Gobernador Polychrome from the Sand Dune Site; Dinétah Gray, Transitional Variety, was the only Navajo-produced pottery at the site. A few Hopi sherds were also identified.

Flaked and ground stone assemblages were well developed at the Sand Dune Site and at Canyon del Muerto. Bones of sheep, goats, cattle, and horse or mule were recovered from the Sand Dune Site, along with charred maize.

James (1976:100) recovered glass beads and metal artifacts (including beads, a knife, a file, a projectile point, and a tinkler) from eighteenth-century Navajo sites on the Canyon del Muerto rim. Thirty pieces of glass and ten pieces of metal from cans were recovered from the Sand Dune Site (Jones 1988:45), but probably reflect the later use of Hubbell's Trading Post.

Kent describes Navajo textiles from the Dinétah and from west of the Chuskas during the 1700s and early 1800s as "almost identical in technique, form, function, and many aspects of design" to Puebloan textiles of the same period. Both the Navajo and their Pueblo neighbors wove woolen "mantas, wool shirts, breechcloths, and belts" using "plain, twill, and alternating-float weaves" in natural colors, indigo, and yellow (1985:49).

Discussion

It is common to summarize a cultural adaptation to a region and period in terms of such general cultural patterns or processes as subsistence, social organization, demography, settlement patterns, and trade. Because such limited research has been done on early Navajo sites west of the Chuska Mountains, however, the following discussion can only sketch the outlines of these patterns.

Virtually all of the data currently available on subsistence come from the Sand Dune Site, where livestock raising (of sheep, goats, cattle, and horses or mules) and maize agriculture are evident (Jones 1988). Granaries and other storage facilities are reported at defensive sites in the Canyon de Chelly area, but what crops or other goods were stored in them is not known. Eighteenth-century antelope corrals located on the 1880 Hopi Reservation suggest the importance of communal, large-game hunting by the Navajo. Based on these limited data, Navajo subsistence appears to have been based on a mixture of maize horticulture, wild animal

procurement, and livestock raising. The absence of significant quantities of trade goods suggests that Navajo groups were relatively self-sufficient.

Social organization, particularly the number of households using a location, can be estimated in terms of the number of dwellings at a site. Twenty-three sites discussed above had dwellings on them; seven of the sites were defensive, sixteen were habitations. If all twenty-three sites are considered as a group, the number of dwellings ranged from one to forty-nine and averaged 5.7 dwellings per site. Defensive sites had more dwellings (from two to forty-nine, with an average of 1.3) than did habitation sites (which had from one to ten dwellings, with an average of 3.3). Defensive sites probably served most often as refuges for dispersed communities consisting of (based on the statistics above) from one to fifteen outlying habitation sites. These estimates should be tested with surveys around pueblitos and defensive sites, similar to the surveys conducted in Dinétah (Marshall 1991; Towner and Johnson 1995; Dykeman and Wharton 1994). If combined with dendrochronological analyses of the larger sites, such surveys may provide important data concerning the initial Navajo occupation and expansion west of the Chuskas.

Few studies have been done of early Navajo site specialization, seasonality, and duration of use west of the Chuska Mountains. This study identified pueblitos, fortified sites, defensible locations, habitations, and limited-activity sites that included a summer camp, sherd areas, corrals, storage bins, a possible hunting

camp, antelope corrals, and rock art. The Sand Dune Site was a habitation site that contained dense concentrations of overlapping features evidencing a wide variety of activities, long-term occupation, and reuse. The sites at Canyon del Muerto were not as complex, perhaps indicating single episodes of use. The excavated site at Lukachukai is described as a summer camp. Intermixed among the habitation settlements are limited-activity sites, which include storage bins, stock corrals, antelope corrals, small camps, and artifact scatters of unknown function.

The rock art of Canyon de Chelly and Carson's Wall, as well as the ceramic and architectural traditions shared by Navajos living east and west of the Chuska Mountains, attest to the cohesion of Navajo society even during times of migration and expansion. It is unclear to what extent Navajo pottery was traded within the Navajo tribe, and petrographic analysis of early Navajo ceramics from throughout the Navajo country is badly needed. As mentioned above, Lee (1966) felt that the Defiance Plateau summit was the dividing line between sites that were most likely to have Zuni-Acoma ware and sites that were most likely to have Hopi pottery. Anderson (1984), however, found an overwhelming preponderance

of Eastern Pueblo pottery at site AZ-I-64-1 [NNCRMP] on the rim of Canyon de Chelly, and James (1976:101) states that at Canyon del Muerto, tradewares were from the Zuni-Acoma region, but the locally produced polychrome pottery seemed to be heavily influenced by Hopi pottery. Hopi pottery was the only tradeware reported from the Sand Dune Site, and it was found in limited quantities (McKenna 1987). Olivella shells recovered from the Sand Dune Site (Jones 1988) indicate even broader trade connections; Euroamerican goods were quite rare, however.

## Conclusions

Knowledge of the early Navajo colonization of and adaptation to the region west of the Chuska Mountains is currently comparable to the state of knowledge about the Dinétah some ten years ago. Historical evidence suggests that the Navajo may have been using the area at least as early as the late seventeenth century, but detailed archaeological documentation is lacking on sites dating before the construction of pueblitos in the region about A.D. 1760. Ample evidence exists for Navajo use of the area by the late 1700s, however. The Navajo expansion west of the mountains may have been spurred by Ute and Spanish military pressures, but was facilitated by a flexible economy that included agriculture, communal hunting, and stock raising. Native American oral traditions and information on trade into early Navajo settlements west of the Chuskas indicate a wide range of sources for Navajo population and cultural influences. The population of the region may have been derived from Hopi as well as Dinétah.

Ceramics were imported into the area from Hopi, Zuni-Acoma, and the Eastern Pueblos. Despite this multiplicity of cultural contacts, the Navajo west of the Chuska Mountains maintained strong identity with the Dinétah Navajo as exhibited in subsistence, settlement pattern, architecture, ceramic technology, rock art, and (based on the evidence in rock art) religion. Native American oral history potentially could serve as an extremely important source of hypotheses about the Navajo west of the Chuska Mountains. The possibility that all of the sites on the southern Defiance Plateau were under the leadership of one man descended from the Hopi survivors of Awatovi suggests research questions about community organization and at the same time challenges archaeologists to hone their analyses to answer far more detailed questions.

*Acknowledgments.* I would like to thank Ron Towner for organizing this volume and inviting me to take part. Ron, Larry Benallie, Jr., Jim



Bradford, and Cherie Scheick all provided site data. Miranda Warburton showed me the Lone Tule Wash site. David Brugge, in numerous conversations over the years, supplied information on a wide range of topics that ended up being discussed in this paper. Dave Wilcox has had a similar degree of influence on my Navajo research and allowed access to the Museum of Northern Arizona's site files and collections. Barbara Thurber and her staff at the MNA library were helpful as always. Beth Grindell of the Arizona State Museum (ASM) looked up Thomas Lee's site locations; Art Vokes of ASM pulled Lee's collections for my inspection. Kelley Hays-Gilpin identified the Hopi sherds in Lee's collections at ASM.

## 9

# The Early Navajo Occupation of the Grand Canyon Region

Richard M. Begay

Alexandra Roberts

## Introduction

Current research by the Navajo Nation is documenting Navajo occupation of the Grand Canyon region that predates the Fort Sumner era of 1864-1868. The study is part of the background research for an environmental impact statement for modified operations at the Glen Canyon Dam, near Page, Arizona. The Glen Canyon Environmental Studies-Navajo Cultural Resources Project (GCES-NCRP) encompasses the Colorado River corridor between Lake Powell and Lake Mead, a total distance of 225 river miles (360 km) (Figure 9.1).

The ongoing project includes three primary elements: reviewing popular and scholarly literature, interviewing knowledgeable Navajo residents of the Grand Canyon area about places in and around the Grand Canyon, and revisiting potential Navajo archaeological sites recorded by the National Park Service in the Grand Canyon. The combination of archaeological and ethnohistorical data collected from these sources provides a basis for reconsidering early Navajo history in and around the Grand Canyon.

## The Literature

Except for a cryptic reference to Navajo migration into the Grand Canyon from Canada about A.D. 1500 (Belknap and Evans 1969:71), most popular interpretations of Navajo history in the Grand Canyon region suggest that Navajos arrived only very recently, in the 1850s or 1860s (e.g., J. D. Hughes 1978:29; Martin 1989:81; Rusho and Crampton 1992:7).

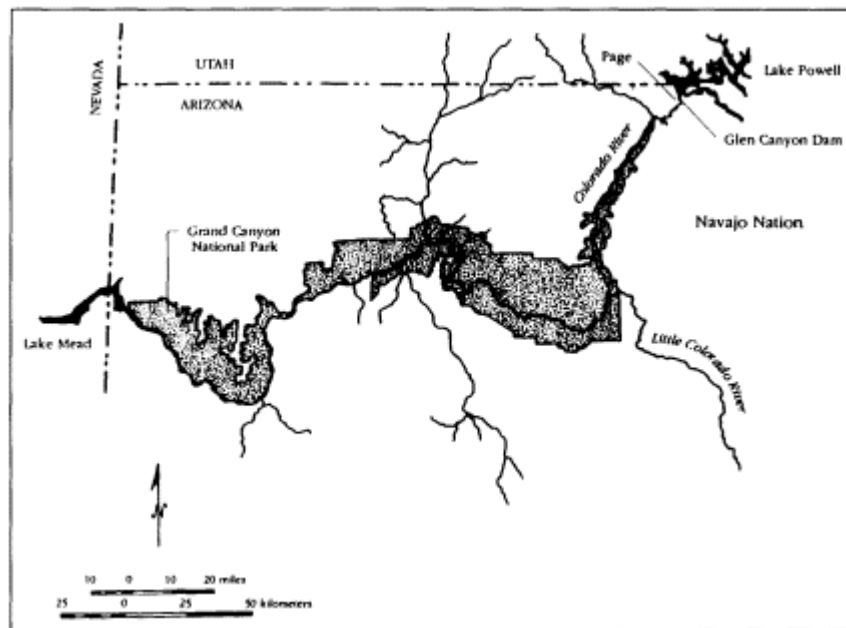


Figure 9.1.

Navajo occupation and project area near the Grand Canyon.

These interpretations derive from prevailing scholarly theories that in the early nineteenth century the extreme western periphery of Navajoland extended no farther than contemporary Hopiland (Bartlett 1942:16-17, 1945:42-44; Hester 1962a:83-84). Ellis (1974:408-42), for example, argues that Navajos fled west into the Grand Canyon region about 1860 in response to increasing pressure from the United States Army just prior to its full-scale campaign against the Navajo people in 1863. According to Ellis, pressure from the U.S. Army was combined with pressure from other Indian tribes, including Hopis, Utes, Paiutes, and Apaches, who took advantage of the United States' position against the Navajo to wage their own hostilities. Locke offers a similar interpretation of Navajo westward expansion just prior to 1863:

[The Navajo's] only line of defense was to retreat as far

as they could into their mountains and canyons and hope to avoid both Carson's volunteers and the hordes of New Mexican, Ute and other Indian raiders ... most of the tribe fled west, beyond the Hopi villages and as far as the Grand Canyon. (1976:355)

Descriptions such as Ellis's and Locke's conjure up surreal images of

thousands of Navajos looking east one day in 1862, dropping their farming implements, abandoning their livestock, and running across the Arizona desert with the United States Army and its Indian allies on horseback in hot pursuit. Navajos, arriving at the great precipice of the mysterious and unknown Grand Canyon, jump in and stay there for four years. Dobyns and Euler (1972:53) propose that they did not cross the Little Colorado River until after their release from captivity by the U.S. Army in 1868, and Euler (1969:9,12) apparently does not believe that Navajos were in the Grand Canyon at all prior to the 1880s.

Ellis (1974:425) acknowledges that ethnohistorical accounts establish Navajo presence on Gray Mountain (Coconino Point) on the eastern rim of the Grand Canyon by 1825. She concludes that Gray Mountain was good pinyon-nut country, where Navajos came from long distances during good harvest years (every seven years or more) and were permitted by other Indian tribes (Hopi or Havasupai) to stay for two or three months during the harvest before returning to their homes in the east.

Historical and ethnohistorical accounts collected by the Navajo Nation for land claims submitted to the Indian Claims Commission in the 1950s and 1960s (Navajo Nation 1963), however, document ancestral Navajo use of the Grand Canyon-Coconino Plateau region by the end of the seventeenth century. By the early to mid-1700s, Navajo occupation of the Coconino Plateau was well established. Bandelier (cited by Correll 1976:20) maintains that the Navajo were at war with the

Havasupai and, by 1686, the latter were defeated and retreated permanently into the Colorado River gorge. Sixty-three tree-ring dates from hogans and other Navajo structures west of the Little Colorado River, including the Coconino Basin, Gray Mountain, and Red Butte areas, range from 1709<sup>incG</sup> (Navajo Land Claims [NLC] site W-LLC-C-B, 2.5 miles south of Desert View Tower) to 1798<sup>incG</sup> (Stokes and Smiley 1964). After evaluating the tree-ring dates from these sites, Ron Towner (personal communication, 1993) suggests that the 1709 date is an anomaly probably representing the reuse of old wood, but tree-ring samples from NLC sites W-LLC-C-B, W-LLC-C-OO, W-LLC-C-MM, and possibly W-LLC-C-D are strong cases for 1780s to 1790s construction dates. These tree-ring dates suggest that the area west of the Little Colorado River was available for settlement after the Havasupai were defeated by the Navajo in 1686 and Navajos became established on the eastern and southern rims of the Grand Canyon during the eighteenth century (Correll 1976:20-24; Navajo Nation 1963:28-37, 47; Stokes and Smiley 1964:15-17). Brugge (1983:490, personal communication 1993) agrees that by 1800 Navajo settlement was clearly established along the Colorado River, west of the

Little Colorado River on Gray Mountain, and within the Little Colorado River drainage.

Well-established nineteenth-century Navajo settlement on the eastern border of the Grand Canyon country is also supported by Navajo birth records and ethnohistory. In addition to records for Navajos whose specific birth locations are known, records exist for ninety-one Navajos born within the western Navajo area (west and northwest of the 1882 Executive Order Reservation surrounding the Hopi villages) between 1809 and 1868 (Navajo Nation 1963:52).

Ethnohistorical information indicates that the predecessors of current residents of the Wupatki Basin southeast of Gray Mountain were born on Gray Mountain beginning in 1823 (Navajo Nation 1963:55-69; A. Roberts 1992:25-32). During the nineteenth century these related families moved seasonally over an immense region that extended from the Grand Canyon, or even farther north, south to present-day Williams, Flagstaff, and Leupp, and from west of the San Francisco Peaks east to the Moenkopi Plateau.

Forty tree-ring dates from Navajo archaeological sites date to between 1803+G and 1867inc and attest to entrenched pre-Fort Sumner settlement west of the Little Colorado River in the upper and lower Coconino Basin, within the contemporary boundaries of Grand Canyon National Park, on Gray Mountain, and in the Kaibab National Forest (Correll 1976:73; Navajo Nation 1963:53-95; Stokes and Smiley 1964:15-17). Throughout this period, Navajos were collecting plants and minerals (salt and red ochre) in Marble and Grand



Canyons from Lee's Ferry to at least the confluence of the Little Colorado River. They were hunting on the Coconino Plateau as far west as Havasu Canyon (where the father of a prominent Navajo headman was born in 1855) and crossing the Colorado River to hunt north of the Grand Canyon on the Kaibab Plateau.

Immediately prior to the incarceration of Navajos at Fort Sumner, New Mexico, in the mid-1860s, Navajos moved into the Grand Canyon year-round. Five Navajo families farmed and lived with Havasupai families for two years at the present-day site of Indian Garden below Grand Canyon Village on the upper river terraces (site form NLC site W-HC-LHKK, Brewer 1937).

Later, these same families moved to Cataract Canyon (Navajo Nation 1963:89) with the Havasupai families. Members of some of these Navajo families were the parents of Clyde Peshlakai, who recalls:

My mother and father traveled ... down into the Colorado River in Grand Canyon. This was the beginning of their travel on the way to Fort Sumner. They stayed in the Grand Canyon for a year then came back on top where the Richardson Ranch is now. That is in the upper

basin. Then they went back to the Colorado River and followed the benches and breakers into a place now known by White men as Indian Farms in the Grand Canyon, which is at the foot of the El Tovar Trail into the river from the El Tovar Hotel. From there they came back to the mountain, up to where El Tovar is now. They had to use a yucca rope to hoist their goats up on top to where they would go south towards Red Butte. (1961:23)

A short time later, some of the families moved to Supai Canyon, and "stayed in that canyon for one summer and the following winter and the following summer until late fall. When they came out of Supai canyon they met up with a group of Navajos who were living at the top of the canyon" (Peshlakai 1961:3). Clyde Peshlakai's sister, Ethyl Robbins, relates that "My [maternal] grandmother, 'White Woman,' told me that they lived with the Supai people on top of Supai Canyon and part of the time in Supai Canyon before Fort Sumner. The Supais were friendly at that time so they lived with them for quite a number of seasons" (Robbins 1961:34). Oral history collected during the GCES-NCRP documents Navajo families living upriver from Indian Garden during the same period in the Little Colorado River gorge and along the beaches and terraces of Marble Canyon. Stories told by several elderly members of the Cameron and Gap/Bodoway communities relate that this time was called *Lii dibaa dabiis hin needaa* (When Horses Died of Thirst), referring to a period of major drought. This may have been the drought of 1863-1864 described by Ellis (1974:425-27).

One woman in her early seventies describes her grandfather as the leader of a group of families living in Marble Canyon. Other interviewees remember some of their ancestors as members of the families living in the canyon. Bringing donkeys, nine horses, sheep, and goats, they moved into the canyon and planted corn during the spring. After planting, they moved back up to the rim and descended again in the summer to harvest the crops. Subsisting on corn and wild plants, they remained in the canyon through the winter. Similar stories are told about families living in the Little Colorado River gorge. Clyde Peshlakai's father, who was born about 1850, described his family's movement in and out of the Grand Canyon about 1864:

A long time ago we used to live in the bottom of the Grand Canyon I was about 14 because Apaches raided us. We took our horses and sheep down with us on a trail about four miles upriver from Kin Nez (Hopi Tower). We stayed all summer and came out in the fall. There

was lots of grass and water down there. In the winter we lived near the Canyon. This was before Huelde (Fort Sumner). There were many people in the Canyon. (Peshlakai Etsidi, quoted by Brewer, n.d.)

Nineteenth-century Navajo ceramics collected at various places in the Grand Canyon attest to this occupation. The National Park Service (NPS) recently recovered a complete nineteenth-century Navajo vessel from Hance Creek, about ten miles upriver from Indian Garden (Jan Balsom, Grand Canyon National Park Archaeologist, personal communication 1992), and David Brugge recalls identifying sherds of Pinyon Gray from the Grand Canyon between 1968 and 1973 (personal communication 1993).

As noted above, conventional anthropological literature suggests that Navajos were arriving in the Grand Canyon region in the middle of the nineteenth century in response to pressure from the United States Army and other Indian tribes. A closer examination of archaeological, documentary, and oral historical data, however, indicates that “Long before the Fort Sumner period, Navajos had established land occupancy and use rights throughout the Western area [of Navajo territory]” (Navajo Nation 1963:88), including the Grand Canyon. This long-established Navajo presence precedes commonly accepted dates of Navajo arrival by at least a century. Nonetheless, accepted anthropological and historical conventions continue to influence interpretations of the archaeological record of the Colorado River corridor in the Grand Canyon.

The Archaeology

As part of the background studies for the Glen Canyon Dam Environmental Impact Statement, NPS completed an archaeological survey along a 255-mile stretch of the Colorado River between Glen Canyon Dam and Separation Canyon (Fairley et al. 1991). The survey encompassed 10,506 acres between the river bank and the line where the river has reached a flow of 300,000 cfs. Four hundred seventy-five archaeological sites were documented within the project area, but only six were identified as potentially having Navajo cultural affiliation. These six sites are clustered in the Lee's Ferry area, slightly below Glen Canyon Dam, and for the most part are considered to date to the twentieth century. (All sites discussed below with AZ prefixes are numbered according to NPS site numbering system for Glen and Grand Canyons.)

NPS sites AZ-C-2:11, AZ-C-2:57, AZ-C-2:58, and AZ-C-2:60 are twentieth-century sites, most with documented histories of Anglo use or

occupation but also including evidence of Navajo use or occupation in the form of dry-laid masonry structures or features (Fairley et al. 1991:20711). The other two sites recorded by the NPS as possibly Navajo are AZC-2:56, an undated petroglyph that may resemble Navajo ceremonial masks, and AZ-C-2:106, an undated roasting feature containing two brownware sherds of either Navajo or Southern Paiute origin (Fairley et al. 1991:216).

Although the survey concentrated on the river corridor and not the upper terraces of the canyon, the scarcity of Navajo sites was surprising given the intensity of historic-period Navajo occupation in and around the canyon. Furthermore, based on identification of various brown and gray wares, 110 sites were considered to represent late pre-, proto-, and historic Pai, Southern Paiute, Pai/Paiute, Hopi, and "historic unknown" or "ceramic unknown" occupations (Fairley et. al. 1994:30, Tables 5 and 11). In the draft archaeological survey report, however, the authors note that

The perishable nature of most late prehistoric- protohistoric artifacts, the lack of stylistic development in nonportable goods, the opportunistic use of raw materials and Puebloan artifacts, and the transiency of most site occupations make the identification of temporally specific subdivisions of Pai and Paiute occupations in the Grand Canyon difficult. Because of the general lack of temporally sensitive artifacts, the dating of Pai and Paiute sites in the Grand Canyon largely depends on the presence of aboriginal and Euro-American trade items. The primary diagnostic artifacts for the late prehistoric period are Hopi ceramic types, Awatovi Black-on-yellow, Jeddito Black-on-yellow, and

Jeddito utility wares. Hopi trade wares such as Sikyatki Polychrome, European trade beads and various other historic artifacts are indicative of the protohistoric and early historic period. Hopi ceramics are by far the most common temporally diagnostic artifacts recovered from Pai and Paiute sites. In the western canyon, the presence of these widely traded ceramic types cannot be taken as direct evidence of a late prehistoric/proto-historic past Hopi occupation, but they do provide evidence of Hopi influences were felt far to the west of the Hopis historic territorial domain. (1991:110-11)

It is interesting that these same criteria do not seem to apply to identification of sites with possible Navajo cultural affiliation. As noted by Kelley (1992:7), late eighteenth- to early nineteenth-century Navajo sites on the canyon rim recorded by archaeologists for the Navajo Land Claim (NLC) contain mixed ceramic assemblages, including few Navajo sherds. NLC site W-LLC-C-CC, a site in the Gray Mountain vicinity containing a

Navajo hogan, for example, had a ceramic assemblage of six “Walapai,” three Anasazi, three unidentified sherds and one Pinyon Gray (Navajo) sherd. Similarly, NLC site W-LLC-C-A, four miles south of Desert View, contained six hogans and a ceramic assemblage with only Hopi and Anasazi sherds. Sites NLC W-LLC-C-D and NLC W-LLC-C-G, late eighteenth-century Navajo sites in the same vicinity, contain similar mixed ceramic assemblages.

Kelley (1992) also questions the extent to which Jeddito Yellowwares indicate a “Hopi presence,” because Hopi refugees from Awatovi, a center of production of Jeddito Yellowware, sought refuge among Navajo groups and became Navajos after an attack on Awatovi by other Hopis in A.D. 1700. These Hopi Tobacco Clan refugees intermarried with Navajos and became the contemporary Navajo Tobacco Tachii’nii Clan (Kelley et al. 1991). According to Kelley, “Indeed, forbears of a Navajo man who described his childhood memories around 1860 living in the Grand Canyon and south rim ... are linked by other sources ... to a possible descendent of the Awatobi refugees (Big Backbone) or a locality associated with the refugees (Tachee)”(Kelley 1992:67).

Thus, the same criteria used to identify the ninety late pre-, proto-, and historic Pai, Southern Paiute, and Pai/Paiute sites or even the eight late pre-, proto-, and historic Hopi or the seven historic unknown sites may indicate that at least some of these sites are Navajo. Nonetheless, implicit in the descriptions of the four



sites containing Navajo components (AZ-C-2:11, 2:57, 2:58, and 2:60) is a more limited set of identification criteria: (1) they border the contemporary Navajo Indian Reservation on the left bank of the Colorado River, (2) they date to the twentieth century, and (3) they contain dry-laid sandstone masonry architecture. The anthropological and historical conventions offered in the literature provide the basis for assuming that Navajos entered the Grand Canyon region in the late nineteenth century and that their presence was limited to the south side of the eastern canyon. These assumptions influence the criteria used to identify Navajo archaeological remains, and the interpretation of these remains reinforces the stereotype created by the scholarly and popular literature.

With these dilemmas and the complexity of early Navajo mobility in the Grand Canyon region in mind, the GCES-NCRP initiated fieldwork to identify Navajo cultural resources in the Grand Canyon. In addition to conducting interviews with twenty knowledgeable residents of Navajo communities bordering the Grand Canyon, project members and local residents visited some of the archaeological sites identified as both Navajo and non-Navajo by the NPS. The combination of oral history and archae-

ological evidence provides a basis for reinterpreting the conventional wisdom on early Navajo history in the Grand Canyon.

## GCES-NCRP Research Results

### *Navajo Archaeological Remains in the Grand Canyon*

In a review of the National Park Service's draft archaeological survey report, Kelley (1992) identified sixty-one sites in the eastern part of the Grand Canyon bordering the Navajo Reservation that were described by the NPS as (1) Euro-American or historic Pai/Paiute on the basis of historic artifacts; (2) Hopi on the basis of Jeddito Yellowwares; (3) "cultural affiliation unknown" on the basis of lack of diagnostic artifacts; and (4) late prehistoric or early historic Paiute on the basis of plain gray or brown wares. Based on the problematic ethnic affiliations suggested by the artifact or structural assemblages, or both, and given the locations of the sites with respect to historical and contemporary Navajo use of the Grand Canyon, the Navajo Nation believes that these sites could represent early Navajo occupation as easily as Pai, Paiute, Hopi, or "unknown."

Documentation for all sixty-one sites was reviewed and thirty-three sites were selected for visitation, including the six sites recorded as Navajo in the Lee's Ferry area. About half the sites selected were visited, in addition to several sites pointed out by NPS archaeologists that did not appear on the Navajo Nation's site list. At some of these sites, "nips" were taken from a small collection of eleven sherds. These sherd "nips" were analyzed by

David M. Brugge, a well-known Navajo ceramics specialist.

Navajo Nation archaeologists and community members consulted by the GCES-NCRP first visited the Lee's Ferry sites identified by the NPS as possibly containing Navajo components. Navajo Nation representatives agreed that all but one site (AZ-C-2-56, a petroglyph identified as a possible Navajo ceremonial mask) may have late nineteenth- or twentieth-century Navajo components. A previously unrecorded Pinyon Utility Ware sherd was found on site AZ-C-2:60, further supporting the NPS interpretation of Navajo architecture at this site, and a late nineteenth- to early twentieth-century Navajo use of the Lee's Ferry area in general.

This sherd and an additional isolated Pinyon Utility Ware sherd found on a subsequent site tour in the vicinity of the Palisades Complex, approximately sixty-five miles downriver from Lee's Ferry, add more supporting evidence to interpretations based on the Pinyon Utility Ware sherds already recorded from Hance Creek and other places in the Grand Canyon. Even though "nips" of the various brown and gray ware sherds collected

by Navajo Nation representatives from sites attributed by the NPS to Pai and Paiute occupations do not include Navajo manufacture (David Brugge, personal communication, 1993), the growing body of Navajo ceramic evidence, tree-ring dates collected from Navajo archaeological sites along the canyon rims, and the oral histories support the inference that Navajos occupied the area in the nineteenth century.

Architectural evidence on at least one site also strongly suggests a pre-Fort Sumner Navajo occupation. NPS site AZ-B-16:3 is ninety-eight miles downriver from Lee's Ferry on a terrace at the confluence of the Colorado River and Crystal Creek. The site was originally recorded by Euler (1969:17) as a Pueblo III Anasazi site and re-recorded during the NPS survey as a Pueblo II Anasazi site; it consists of four masonry structures and a scattering of prehistoric sherds and lithics. Navajo Nation anthropologists and Navajo consultants identified the site as very possibly early Navajo.

The main structure is circular, constructed of several courses of dry-laid tabular schist, and measures slightly more than 4 m in diameter; it has an east-facing entryway defined by upright slabs similar to Navajo structures described in other areas (e.g., Brugge 1968b:18-19; Hurt 1942:90; Riley 1954:53-54). The three other masonry features are small, discontinuous circular or semicircular enclosures spaced along the base of a schist ridge. They are similar to the small animal pens commonly found on other Navajo archaeological sites (Jett and Spencer 1981:60; Keur

1941:21-22, 1944:76). Although no evidence of an ash pile remains on the highly deflated ground surface, limited test excavations outside the main structure could reveal the location of the ash pile northeast of the entryway, the presence of a hearth inside the structure west of the entryway, or both. If this site is Navajo, as we strongly suspect, its implications are far-reaching.

First, it predates the Fort Sumner incarceration. During his 1869 exploration of the Grand Canyon, John Wesley Powell noted “old Indian camps” in the Crystal Creek drainage. Euler (1969:17) believes site AZ-B16:3 is the site to which Powell referred. Euler and Walter W. Taylor (Euler 1969:17) found only nine potsherds on the site when they recorded it in 1965, all of which suggested an early Pueblo III Anasazi occupation dating between A.D. 1100 and 1150. Anasazi ceramics frequently dominate the ceramic assemblages on early Navajo archaeological sites, however, and an assemblage of nine sherds is extremely small. If site AZ-B16:3 is the one noted by Powell, it already appeared “old” when he saw it in 1869, suggesting Navajo occupation well before the Fort Sumner incarceration. Conversely, Powell may have been referring to sites more than three miles up the Crystal Creek drainage. His diary states that he walked

up the creek three miles, but Euler (1969:17) notes that the other sites along Crystal Creek are more than three miles from the confluence. If Powell was referring to sites more than three miles up Crystal Creek, it would suggest that site AZ-B-16:3 did not yet exist in 1869, because it is at the confluence of Crystal Creek and the Colorado River and would be difficult to miss. If this is the case, it reinforces the site's potential Navajo affiliation, although not necessarily a pre-Summer period occupation.

Second, the site is located ninety-eight miles downriver from Lee's Ferry, and far west of the area conventionally thought of as within Navajo customary use areas. It is, however, well within the area of Navajo use identified through Navajo oral history, especially regarding relationships with the Havasupai.

Third, the site is located on the right (north) bank of the Colorado River, again contradicting the assumption that Navajo territory is and always has been restricted to the south side of the Grand Canyon and that the Colorado River was historically a barrier to Navajo access to the north side. Navajo oral history is specific regarding customary uses of *Nat'oh Dził*, the Kaibab Plateau, and is supported by evidence from site AZ-B-16:3.

Excavation may ultimately provide additional compelling clues to the cultural affiliation of the Crystal Creek site. If it is Navajo, this site will call into question the standard criteria for identification of Navajo archaeology in the Grand Canyon. Such an affiliation could also dispel the conventional archaeological mythology that has provided the basis

for interpreting the Navajo history of the Grand Canyon.

The absolute and relative dates provided by archaeological methods help reconstruct one version of early Navajo history in the Grand Canyon. Collecting stories from knowledgeable Navajos documents Navajo history as they see it. Recorded observations by non-Navajos and scientifically derived tree-ring dates indicate that Navajos have been present in the Grand Canyon since the eighteenth century. Navajo oral tradition teaches us that the Grand Canyon was created by the Holy People to drain the water from the earth for the benefit of the people who would come into this world. The archaeological record, both historical and “prehistoric,” supports these versions of early Navajo history in the Grand Canyon, a history which is much richer than has been previously assumed.

### *Places of Traditional Significance in the Grand Canyon*

As part of the GCES-NCRP we conducted ethnographic interviews with approximately twenty members of three Navajo communities bordering the east side of the Grand Canyon between April and October 1992. Most

of these interviews took place on trips along the rims of the canyon; we also took several trips with knowledgeable local Navajos up- and downriver from Lee's Ferry, including on Lake Powell, and an eight-day trip down the 225-mile length of the Colorado River from Lee's Ferry to Diamond Creek.

The Navajo cultural resources identified by Navajo consultants include trails, plant-gathering areas, family home sites, corrals, farming areas, mineral-gathering areas, salt-gathering areas, prayer-offering places, sacred places, and historic sites. Some of the consultants also told us of Navajo affiliation with prehistoric archaeological sites (A. Roberts and Begay 1992). In addition to the standard, non-Navajo interpretations of Navajo history that the archaeological evidence in the Grand Canyon supports, it also reinforces traditional history as known and told by Navajos themselves.

Prior to our eight-day trip down the river, Mr. Manygoats (all names used here are pseudonyms) mentioned the Grand Canyon as the origin of a sub-category of the Navajo *Tachii'nii* Clan. Throughout the trip he searched the canyon walls for the place described to him in Navajo history. We came upon an "Anasazi" site in a rock overhang near river mile 135 and he asked us to stop. After his inspection he decided that this must have been the place of the clan origin and explained:

There are Anaasazi Tachii'nii among us, they came from the Anasazi. Not many people know of this clan. There are several different kinds of Tachii'niithere is the



Nanasht'ezhi Tachii'nii, the Nat'oh dine'e Tachii'nii, they originated from the Hopi, and there is the Anaasazi Tachii'nii, and they are the ones that came from here, the Grand Canyon. They originated from a site located under a rock overhang or cave. Something like a bad wind killed most of the Anasazi off, but this cave or overhang protected a group of them. After the bad wind passed those that survived left the canyon in search of others. They finally ended up at Canyon de Chelly where they lived. After a while they began to interact with Navajos and finally became Navajos themselves. They became known as the Anaasazi Tachii'nii. There must be some of this clan up towards Chinle, Canyon de Chelly area. (Begay and Roberts 1992)

Mrs. Darkwood offered similar suggestions of Navajo origins in the Grand Canyon region. On a field visit, she pointed to several historic sites located under overhangs and described them as places of refuge for Navajos. Navajos hid from enemies such as Utes and Hopis in these overhangs. She described one incident:

A family had been hiding for several years from enemies. They only burned dried sagebrush or saltweed to cook their small meals. They lived in a site like the ones the white people say belong to the Anasazi... . A lot of the sites our ancestors built are located on cliffs, or under rock overhangs. There were too many enemies and people had to move and hide all the time. (Begay and Roberts 1992)

Mr. and Mrs. Yucca also explained that many of the archaeological sites identified as Anasazi are really of Navajo origin:

There are a lot of sites around here and many of them are Navajo sites. We know this because both our families originated from here and we continue to live here. Our parents and grandparents told us about their grandparents moving around here living in these sites and living in the canyon when water was scarce up here. Our grandparents knew this land, they moved around here to survive and they told us which of these sites belong to us. Now archaeologists say many of our ancestral sites belong to the Anasazi. We tell our history and many people do not believe it. (Begay and Roberts 1992)

Archaeological evidence supports historical and ethnographic documentation of a late eighteenth-century to early nineteenth-century Navajo presence in the Grand Canyon. History as told by Navajos begins with the creation of the earth. The latter interpretation may be best summarized by Mrs. Salt:

We were here when this world was created for us. When we arrived from the world below, there was water everywhere. After this world was won for us by the Holy People, they cleared the water away. Some say the

Humpback God stood in the center of the world and dragged his cane from east to west and created the canyon. The water drained and created rivers and creeks which then became the veins of the earth. The earth is our mother, and we are her children. We have lived here from the beginning, we came from within the womb of this land. (Begay and Roberts 1992)

The length of time Navajos have been present in the Grand Canyon depends perhaps on the version of history to which one subscribes, although these histories need not be considered mutually exclusive. According to their own history, Navajo people have had strong cultural ties to the Grand Canyon since the beginning of time. Historians, anthropologists, and archaeologists believe that Navajos first moved to the Grand Canyon region in the eighteenth or nineteenth century. Events in

American history discussed above provide the context for these scholarly interpretations of Navajo history, just as Navajo tradition provides a historical and ceremonial frame of reference for the people who continue to live on the rims of the canyon today. The archaeological record in the Grand Canyon can be used to support both versions of the early Navajo history of the Grand Canyon.

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### III

## ARCHAEOLOGICAL EVIDENCE OF NAVAJO CEREMONIALISM

10

## In the Shadow of the Holy People Ceremonial Imagery in Dinétah

James Matthew Copeland

Hugh C. Rogers

### Introduction

The ceremonial imagery of Navajo religion is well known throughout the world as a result of intensive study of sand paintings as sacred and secular art (e.g., Wyman 1983). Compared with the long history of Navajo historical, ethnological, religious, and linguistic research, Navajo archaeological research is a relatively recent phenomenon. Navajo archaeology, including studies pertaining to ceremonial imagery on rocks, has not been as intensively studied or investigated for nearly as long.

Dinétah is the Navajo name for their traditional and ancestral homeland. It is roughly defined by the Continental Divide to the east, Chaco Canyon to the south, the Animas River to the west, and the Colorado-New Mexico border to the north (see Towner and Dean, this volume) (Figure 10.1). Central to defining this area are two holy mountains, Ch'óol'í'í (Gobernador Knob) and Dzil Ná'oodilli (Huerfano Mesa). These two mountains are sacred to the Navajo because of their association with the creation story and many events

involving the lives of Changing Woman and the Hero Twins.

The term Dinétah is derived from diné, the Navajo name for themselves, and 'atah,' meaning 'among' and may be translated as "among the Navajo." A natural question arises as to the identity of "who" were among the Diné, "when" they were among them, and "why" they were there. A reading of the origin stories of the Diné that appear in the English literature reveals that after Changing Woman created the Five-Fingered People (humans: Diné) there was a long and steady gather-

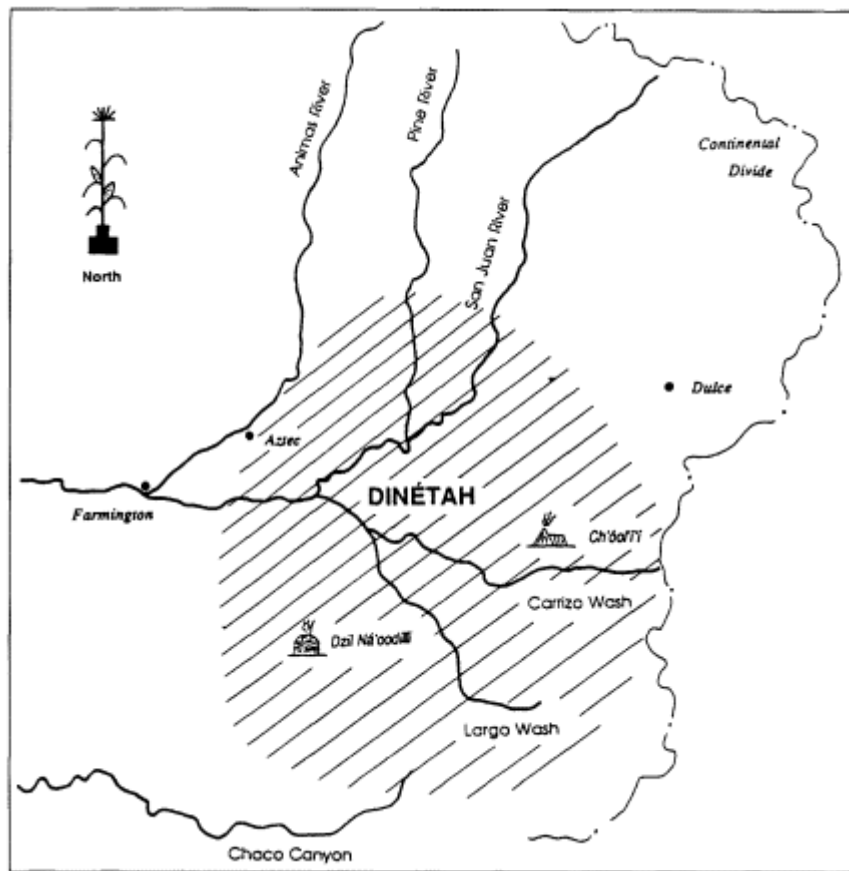


Figure 10.1.

Location and major drainages of the Dinéyah.

ing and joining with the Navajo along the San Juan River by various peoples including Puebloans, Utes, Apaches, Paiutes, Mexicans, and others of unknown origin. “Why” they were among the Diné is diverse and includes famine, refugee status, and captivity as well as looting and warfare by the Ute, military retaliations and exploration by the Spanish army, and, later, missionary work by Spanish priests. “When” can be determined by a study of Navajo oral history, Spanish documents, and archaeological evidence.

Until the mid-twentieth century Dinéyah was a remote area and even now can be difficult to access. After the



Navajo exodus in the mid- to late 1700s, the area was only sporadically occupied until the late 1800s, when Hispanic sheepherders began using the area for winter grazing and left in-

scriptions found throughout the area. In 1912 Alfred Kidder made a short reconnaissance of the area and, although he made no note of rock art, he examined three pueblito sites. He then read a paper before the Archaeological Institute (Kidder 1913) and later published an article that for many years significantly influenced the way historians and archaeologists viewed the Dinétah and Navajo-Pueblo relations (Kidder 1920). (See Hogan [1991] for a review of the influence of Kidder's article on Navajo archaeology.)

Earl Morris visited the area in 1915 and excavated six sites while documenting several others (Carlson 1965). Several petroglyphs were noted, but Morris undertook no specific studies of them. While the notes of Morris's 1915 observations in the Dinétah were languishing unnoticed, Stanley Stubbs published the results of his explorations in northern Dinétah (1930). Stubbs noted that "the Gobernador area abounds in pictographs, some painted on flat surfaces and walls, others gouged out of the soft stone. Outlines of hands are common. There are many symbolic designs and some group drawings of men and animals" (1930:78) He made no attempt to identify the cultural affiliations of these pictographs.

Van Valkenburgh (1938) was the first to publish a description of a "Navajo" petroglyph. While working in southern Dinétah he became interested in an isolated figure at a pueblito site and later had a sketch of the figure examined and identified by Navajo "medicine men." At the same time, Malcolm Farmer was working in the general area and mentioned the Van Valkenburgh

petroglyph and others, including a man on horseback and an hourglass figure (Farmer 1942). In a subsequent publication the figures were identified as Navajo and the hourglass design as the queue symbol for Born-For-Water, one of the Hero Twins (Farmer 1947).

The first formal study of Navajo rock art began in 1959 as part of the Navajo Reservoir Project. In conjunction with salvage excavation of archaeological sites, Polly Schaafsma collected information on petroglyph and pictograph sites to be inundated by the reservoir. In a landmark publication (1963) she established a chronology, performed stylistic analysis, and made attempts at interpretation. Follow-up publications (1966, 1975, 1980, 1992) expanded her study to all of Dinétah and included a great deal of historic and ethnographic data. She defined the Gobernador Representational Style, which had been previously referred to simply as Gobernador Phase rock art, and identified the ye'i as its characteristic figure (1980). Whereas rock art studies are often fraught with problems of chronology and interpretation, Schaafsma's research demonstrated that much of the ceremonial imagery of Dinétah is understandable within the context of Navajo religion.

Much of our knowledge about the imagery in Dinétah is due to the exhaustive work of Harry and Sally Hadlock. Largely unpublished and unknown, the Hadlocks epitomize the best example of what the lay public can offer to the advancement of archaeological knowledge. As dedicated amateurs they recorded more than a hundred rock art sites in the Dinétah. Their site reports, documented with photographs, are on file at the San Juan County Museum, Bloomfield, New Mexico, and are invaluable to students of Navajo rock art. Hadlock (1980) and Olin (1979, 1984) together studied glyphs of the Navajo Hump Back and Fringe Mouth deities (among others) and compared them to modern sand paintings.

Other Dinétah imagery research has focused on the horse and ye'i (Brugge 1976, 1977b), as well as motivation and function of Navajo rock art (Brugge 1977a). H. N. Smith (1974) conducted a stylistic analysis of San Juan Basin rock art (mostly Anasazi) and as a result identified five styles, Navajo being Style IV. Roessel (1983) lavishly illustrated a publication on Dinétah by the Round Rock Demonstration School and showed many photographs of Dinétah rock art. Advances in the understanding and recognition of astronomy in Dinétah imagery have been demonstrated by Chamberlain (1983). Dinétah rock art has appeared in several popular magazine articles and is occasionally found on post cards and calendars.

Since about the late 1970s several new sites have been identified, but, for the most part, they have rested in the foggy obscurity of cultural resource management “gray

literature.” Rock art research in the Dinétah since the mid-1980s has been essentially nonexistent. Within the last two years, however, there has been considerable progress in locating and documenting additional imagery. We have considered the study of Dinétah imagery far from complete and have pursued new sites and revisited previously noted but unrecorded locations.

The purposes of this article are threefold: (1) to consider the chronological beginnings of ceremonial imagery in the Dinétah in light of current archaeological data and some recently documented imagery; (2) consider the importance of place to the distribution of ceremonial imagery; and (3) describe a technique of Navajo ceremonial artistry in the Dinétah not noted elsewhere that illustrates continuity between the sixteenth- to eighteenth-century practices and contemporary ceremonial image-making processes.

In this introduction we have interchangeably used the terms “rock art” and “ceremonial imagery.” We believe that, for the most part, the petroglyphs and pictographs of Dinétah are ritual in purpose and that the term “ceremonial” more correctly describes the function of those

images. Furthermore, we feel these are not simple depictions of Holy People, objects, and events, but instead have a deeper theological meaning not yet understood. For that reason we avoid further use of the term “rock art.”

Some of the observations and suggestions that will be made concerning the Dinétah ceremonial imagery are preliminary and in a real sense “trial balloons” to motivate discussion and analysis. We certainly do not entertain any notion that the ideas discussed here are conclusive, and we expect adjustments as more of the Dinétah is examined.

### Navajo-Pueblo Relations in Dinétah

A common statement made regarding Dinétah ceremonial imagery is that none has been identified that dates to the Dinétah Phase or prior to ca. A.D. 1700 (P. Schaafsma 1992). This is because of the persistent conventional interpretation that the Pueblo Revolt of 1680 and subsequent rebellions in 1694 and 1696 were a watershed for Diné interaction with the Pueblo Indians and the point at which Navajo culture began to undergo significant hybridization as a result of a massive influx of Pueblo refugees during the Gobernador phase, A.D. 1696-1775 (Amsden 1932; Kidder 1920; Keur 1944). Although there has been an acknowledgment of earlier Diné-Pueblo relations, this interaction seems to have been considered slight at best and most manifest in the Navajo acquisition of agriculture.

In reviewing the cultural elements listed for the Dinétah

and Gobernador phases (Hester 1962a:63-64), one is struck by how the prevailing view of Dinétah as a major refuge for Puebloans affected the way the trait lists were compiled. Because the pueblitos were generally thought to have been built, or at least inspired, by the Pueblo refugees of the A.D. 1690s, early investigators assumed that those same refugees brought most of the distinctive traits with them. The preponderance of elements listed as distinctively Gobernador are those of a Spanish or Pueblo origin or both. Prior to the revolts, the Navajo were viewed as groups of poor hunter-gatherers awaiting further light and knowledge, not to mention some good iron axes. It is not surprising that the pueblitos have yielded significant numbers of Spanish items since we now know that the vast majority were built after 1720, during a time of relatively peaceful Spaniard-Diné relations (Towner, this volume). It is erroneous to assume, however, that no acquisition of Spanish merchandise nor, more importantly, Pueblo influence could have taken place prior to the revolts.

The Diné origin stories reveal numerous accounts of interaction between Ye'i or Spirit People (prehuman, pre-Navajo supernaturals), earth-

dwelling Diné, and Puebloans. Although W. Smith (1952:104) may not have wanted to elevate Navajo legend to the level of historical dignity, the stories offer potentially significant insights to the history of the Navajo. As far as the Navajo are concerned, there were no great and sudden influxes of aliens into the Diné world. Rather, after Changing Woman created the Diné, there was a slow but steady joining and assimilation by various outside groups with them, and change was manifest in the acquisition of numerous arts and industries as well as a simplifying of language. The stories also offer glimpses into how the Spirit People and the Diné prospered and were enriched by association and contact with the Puebloans.

As an example, in the Nightway narrative documented by Matthews (1902), the Stricken Twins visit “Thalahogan,” the Navajo designation for Awatovi. W. Smith (1952:104) suggested that because of other elements of the Nightway narrative, the Diné had a significant acquaintance with kiva paintings. Other examples of Diné and Pueblo interaction can be found in Zolbrod’s compilation of the creation stories (1984). In many cases the associations between the Spirit People/Diné and the Puebloans are friendly and peaceful with indications of significant intertribal commerce and association. Zolbrod’s impression is that because of the lack of the European elements in the creation stories (e.g., no horses, sheep, or conquering foreigners and subsequent oppression at their hands), contacts with the Puebloans may very well have been ongoing before the arrival of the Spaniards (Zolbrod 1984:412). Hodge (1895) also used creation story data



to demonstrate how many of the clans were formed prior to European contact, including those of Puebloan origin.

The Diné and the Puebloans had ample opportunity to establish relationships and interact via trade and raiding after the Spanish Entrada and before the 1680 Revolt. In 1626, Father Zárate Salmerón was the first to use the term “Apaches de Navahú” and to locate the Navajo in the Dinétah area. In 1630, Father Alonso de Benavides noted that the Navajo were “very great farmers” (R. W. Young 1968). If one accepts that the Puebloans were the catalyst by which agriculture was developed by the Navajo, then it is not unreasonable to expect that the Navajo also adopted at least some Pueblo farming ritual and ceremonialism, and had been doing so for some time in order to achieve notoriety as “great farmers.” Reeve (1957:42) cites a letter written in 1638 by a Spanish priest who complained that when the individual Pueblo Indians could no longer suffer the imposition of the Spanish, they fled “to the heathen, believing that they enjoy greater happiness with them, since they live according to their whims, and in complete freedom.” Reeve suggests that the “heathen” were the Navajo. Correll (1976) summarizes numerous examples of

pre-Revolt Navajo and Puebloan contact that include a Hopi and Navajo truce in 1629 and anti-Spanish conspiracies and collaboration between the Navajo and Puebloan groups beginning in A.D. 1640.

Using archaeological ceramic data, L. S. Reed and Reed (1992b, this volume) have argued that, based on the distribution of Rio Grande glaze ceramics at Navajo sites in Dinétah, socially significant interaction with the Puebloans was active and sustained prior to the revolts, perhaps as early as A.D. 1500 or even earlier. They also argue it was this sustained interaction and the social ties it created that allowed whatever Puebloans may have fled the Spanish Reconquest to even consider the Dinétah as a refuge. Although many Spanish accounts identify hostile activities between the Navajo and the Pueblos (Hester 1962a:Table XI), it is unlikely that any Puebloans, no matter what numbers were involved, would have sought refuge with the Navajo unless there were some previously established amiable relationships.

### Dating of Ceremonial Imagery in Dinétah

The imagery that has been identified and defined as Navajo in style includes frontal views of round- and rectangular-headed persons with upraised arms and with legs turned in profile. These persons often have elaborate headdresses and costumes, and the calfs and thighs are realistically portrayed. Occasionally objects that resemble recurved bows, rattles, prayer sticks, feather wands, and dance paddles are held by these individuals. Other images include the hourglass-shaped

queues, horses, buffalo, cloud terraces, and so forth. Images that have been classified as Navajo are usually at ground level along the bases of cliffs, and are not usually in direct association with any habitation sites. In a survey of several hundreds of acres around pueblito sites, Marshall (1991:250) noted that Navajo imagery was concentrated at the confluences of canyons and tended to be away from pueblitos (see also Towner and Johnson 1995). In our experience, only about 10 percent of the pueblito sites have imagery of any sort directly associated with the same location (i.e., on the same boulder) or within what might be considered close proximity.

Two recently documented pictograph sites bear such striking resemblance to Pueblo IV-V kiva murals and are so “un-Navajo” in style that they suggest pre-Revolt Puebloan presence in the Dinétah. These resemblances go far beyond some of the generalized attributes noted elsewhere by researchers when considering the similarities between Navajo images and Pueblo kiva murals.

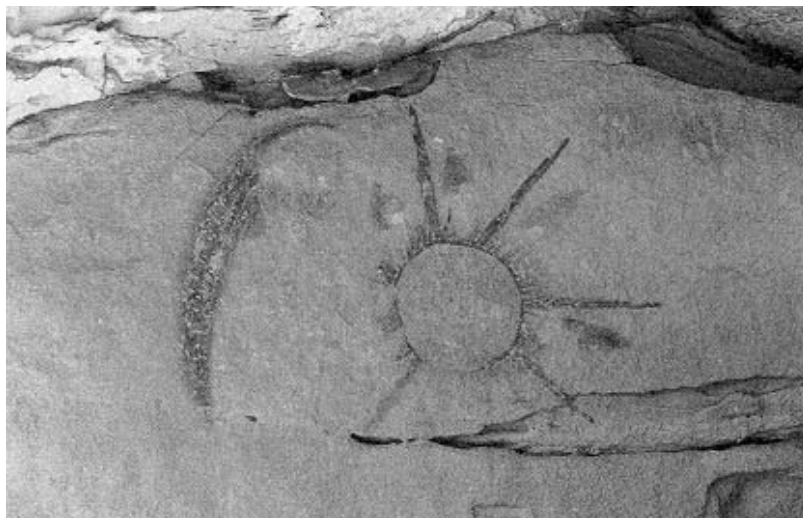


Figure 10.2.

Shield Bearer pictograph site LA 102398. The individual is 50 cm tall.

The side profile, painted lower face, the long black hair with red ornamentation, and a shield decorated with eagle and parrot feathers are reminiscent of individuals portrayed on kiva murals at both Pottery Mound and Awatovi.

### *The Shield Bearer Site*

The Shield Bearer site (LA 102398) is a pictograph panel located in a tributary of Gobernador Canyon. It was painted along the lowest cliff face of the canyon, but several figures are approximately three meters above ground level. None of the elements of the panel are classic Navajo (e.g., ye'i, recurved bows, or horses). There is, however, a Latin cross ascending out of a stepped cloud terrace suggesting that the panel is from the post-Spanish contact period. The panel is characterized by a personage at either end with scattered elements between them.

Of primary importance to this discussion is the image designated as Shield Bearer (Figure 10.2). This individual exhibits classic attributes found in the representations of personages in kiva murals at Pottery Mound (Hibben 1975), Kuaua (Dutton 1963), and Awatovi (W. Smith 1952). Shield Bearer is turned in profile to his left and only the upper torso is

present. There is no evidence that a lower torso ever existed. He has long black hair cut square on the end, with a pair of red streaks the entire length of the hair. The hair extends to the small of the back or waist. The

lower half of his face is painted in two bands, white above and black below, and the neck is painted red. There is insufficient detail to describe any clothing or additional body decoration, but it appears that the torso and arms were white, at least in part. The torso, arms, and neck are outlined in black, and traces of red paint on the upper chest suggest that he may have been wearing a necklace. To his left he is holding a shield decorated with six black-and-white eagle feathers, six red parrot feathers and red fringe encircling the rim of the shield. There appears to have been some interior decoration on the shield, but no detail remains.

A comparison of this figure with those at Pottery Mound, Kuaua, and Awatovi reveals the following similarities: (1) long black hair with hair decorations (red at Pottery Mound and Awatovi, white at Kuaua); (2) facial painting of the lower face; (3) eagle and parrot feathers (e.g., W. Smith 1952:Figure 9k, 9v); (4) side profile.

### *The Kachina Mask Spring Site*

The Kachina Mask Spring site (LA 99811) is located in a tributary canyon of the Carrizo drainage. The site is located in a seemingly “un-Navajo” location high above the canyon bottom on a narrow ledge in a large spring alcove.

The site is a pictograph panel composed of two large circles with seven painted masks between them (Figure 10.3). There is no evidence that the masks ever had torsos. One circle is solid white and the other is white with an encircling black band which is itself encircled

by white, giving the appearance of a bull's-eye. The circles vary from ca. 60 to 110 cm in diameter and the "bull's-eye" has two small, white-painted protrusions on either side of the circle. The painted masks are clustered in a group of six with an additional isolated mask not directly associated with the others. Each mask is circular and measures about 13 to 19 cm in diameter. The right side of the "face" is blue-green and the left is white. There are no facial features or ears. Each mask has a red headdress extending from "ear-to-ear." Within the grouped masks, the interior four have a single white curved horn protruding from the right side of the headdress or head. These four masks are at a slightly higher line of presentation than the unhorned masks at either end. The isolated mask is unhorned and there are no other figures in the panel.

A comparison of this site with the kiva murals at Pottery Mound shows a resemblance to a buffalo kachina mask (Hibben 1975:Figure 67).



Figure 10.3.

Kachina Mask Spring site LA 99811. The two-toned facial masks, red headdress, and single horn are very similar to a mask on a kiva mural at Pottery Mound. The masks are approximately 13 to 19 cm in diameter.

Although color and physical variations exist (LA 99811 lacks eyes, ears, and feathers), the overall configuration is quite similar.

Pottery Mound is ceramically dated at A.D. 1300-1475, and Kuaua is ceramically dated to at least the pre-Hispanic period. The Awatovi kiva murals that most exemplify elements found with Shield Bearer (rooms 788, 528, and 529) date late in the occupation (1600s) of Awatovi, which was destroyed in A.D. 1700. Based on tree-ring evidence, W. Smith (1952:317) concluded that room 788 was constructed in the early sixteenth century. Room 788 also lies under the mission and therefore had to have been abandoned at least by 1629, the year of mission construction. Smith also notes that the design styles found in rooms 788, 528, and 529 were long-lived and appear to have begun late in the early ceramic sequence at Awatovi and persisted throughout the middle period (1952:317).

Neither the Shield Bearer nor the Kachina Mask images have any comparable counterpart in the known registry of Navajo



pictographs in the Dinétah. The imagery itself cannot be independently dated, but cross dating to other well-documented and dated sites suggests that they date to the pre-Revolt period. In light of these data, there is little justification for interpreting all the Dinétah imagery as post-Revolt in age.

## The Importance of Place

Variability in imagery location has been previously noted. P. Schaafsma (1963:52) observed that the lower reaches of the San Juan River lacked Navajo imagery although Navajo habitation sites were abundant there; Marshall (1991:250) has observed a similar pattern with respect to imagery and habitation sites in the Largo and Gobernador Canyons and their tributaries. Schaafsma (1963, 1966) observed that the Largo Canyon drainages contained many more Navajo images than found in the Reservoir District and that certain images seem to be totally lacking in the Reservoir District, namely Fringe Mouth and Hump Back Ye'i. The junction of canyons also seems to be a favored location for image placement (Schaafsma 1980:308). The seemingly preferential placement of Navajo images on the lower cliff faces has been noted by both Marshall (1991: 250) and Schaafsma (1963:52).

The Dinétah country contains literally hundreds of miles of perfectly smooth sandstone easels upon which imagery could have been rendered; often there is the impression that imagery is “everywhere.” If images were randomly placed and based solely on suitability of the rock face, a more even distribution across the landscape would be expected. There is significant intercanyon variation, however. It is particularly apparent that some canyons have large numbers of images and others have very few. It is also obvious that within any particular canyon not all portions of the canyon have been equally utilized for placement and treatment of imagery. Furthermore, the composition of

the imagery varies significantly from canyon to canyon, but less so within a canyon; it is as though each canyon has its own ritual theme.

To demonstrate intercanyon variability, images from five canyons that are part of the greater Largo Canyon drainage system are summarized in Table 10.1. These canyons are but a small part of Dinétah and lie within an area measuring about eighteen miles north-south and ten miles east-west. They were selected because they have been intensively investigated, and most if not all of the most obvious panels and occurrences of imagery have been identified. Information on canyon content was collected from personal observations, the Hadlock records at the San Juan County Museum, and Bureau of Land Management site files in Farmington, New Mexico. Not every previously recorded panel has been intensely reanalyzed or redocumented to confirm or refute initial observations. Several elements were used as a measure of intercanyon variability including corn plants, big round things (often called “shields”), isolated Hero Twin queue and bow symbols, Hump Back, Fringe Mouth, twins or

paired ye'i, triangular-headed ye'i, horned ye'i, unidentified ye'i, hunting persons, large snakes, bats, and what we call true shield figures (individuals, usually with a weapon, with a circular design over their bodies). Any number of other designs could have been chosen or added to the list, but these elements were selected because of their relative commonness or generally unambiguous nature.

TABLE 10.1. Correlation of Canyons and Image Motif.

| <i>Motif</i>           | <i>Canyon</i> |           |      |          |        |
|------------------------|---------------|-----------|------|----------|--------|
|                        | Jesus         | Delgadita | Crow | Palluche | Cibola |
| Fringe Mouth           | 0             | 9         |      | 0        | 0      |
| 1                      |               |           |      |          |        |
| Hump Back              | 0             | 7         | 13   | 5        | 5      |
| Twin Ye'i              | 0             | 2         | 3    | 0        | 1      |
| Triangular-Headed Ye'i | 0             | 0         | 6    | 0        | 0      |
| Horned Ye'i            | 0             | 0         | 5    | 0        | 1      |
| Unidentified Ye'i      | 1             | 21        | 40   | 19       | 28     |
| Hunting Person         | 0             | 0         | 1    | 0        | 4      |
| Bat                    | 0             | 0         | 0    | 0        | 1      |
| Large Snake            | 0             | 1         | 0    | 0        | 1      |
| Shield Figure          | 1             | 0         | 2    | 0        | 0      |
| BRT (big round thing)  | 15            | 1         | 3    | 0        | 2      |
| Bow                    | 1             | 1         | 12   | 0        | 1      |
| Queue                  | 1             | 3         | 6    | 1        | 0      |
| Corn                   | 1             | 1         | 8    | 1        | 5      |

As seen in Table 10.1, there are several noticeable examples of intercanyon variability. For instance, in Jesus Canyon there are prolific numbers of big round things (BRTs) and only one unidentified ye'i. In Palluche Canyon, however, unidentified ye'i are prolific, but there are no big round things. Crow Canyon is the only canyon with triangular-headed ye'i

and is the most prolific with Hero Twin bow and queue symbolism. Pictographs

are most numerous in Delgadita Canyon; in Crow Canyon, where petroglyphs abound, pictographs are absent.

The variation between canyons is intriguing. We suggest that this variation reflects some as yet not completely understood importance the specific places held in the ceremonial structure of Dinétah. We further suggest that although ritual knowledge may have been evenly distributed among the Dinétah population, the differences between canyons may reflect the different types of ritual performed at those places.

Polly Schaafsma (1992:35) has suggested that Delgadita Canyon may have been singled out for Nightway Chant performances or that the ceremony had its origin there. Although some of the more prolific *ye'i* found in the Delgadita Canyon pantheons are major characters in the Nightway Chant (e.g., Fringe Mouth, Hump Back, and female *ye'i*), they also appear in other sand paintings and may participate in other ceremonials (e.g., Mountain Chant, Shooting Chant, Coyoteway [Faris 1990:158; Luckert 1979; Reichard 1950; Wyman 1975]). In the Dinétah they appear elsewhere, sometimes in greater numbers than in Delgadita Canyon. Although we agree that some areas were probably singled out for certain rituals, it may be premature to correlate any specific place and ritual at this time.

There is historical evidence to indicate that sites with ceremonial images were used for specific purposes. Van Valkenburgh (1974) indicates that offerings were made at To'aheedli (the junction of the San Juan and Pine

Rivers), and Haile (1981) mentions that sacred water was collected there. Schaafsma (1963) documented a significant series of imagery at To'aheedli and noted that offerings and prayers for rain were directly associated with the imagery. Newcomb (1964) records several visits by the Navajo to To'aheedli in the nineteenth century and early twentieth century during times of stress.

Some of the imagery may correspond to locations where traditional creation events occurred. Much of Dinétah lies between the mountains Dzil Ná'oodilli and Ch'óol'í'í, and prior to the Navajo exodus there certainly must have been numerous places associated with events pertaining to the Holy People and other ye'i. Certain kinds of appropriate behavior associated with these places were at times dictated to the Navajo by the supernaturals.

In his narrative of the Nightway, Hosteen Klah noted the following:

The travellers then went on to Shid-Ih-Glin [no meaning] where Zah-Dohl-Jiah lived who is the head of all the Yehs (sic) and the gods told the Dreamer to go inside the Hogan there and draw pictures of all the Yeh gods on the wall of rock inside and that he did this and after-

wards the gods told him that the Earth People would see these pictures in the future and that when they wanted to have a Yeh Ceremony they should scratch a little rock from one of these pictures and use it in the ceremony. (Faris 1990:222-23)

In the Coyoteway narrative of Yoo' Hatalii, the following account is made:

When they [Yellow Corn People] awoke at dawn they saw him [Yellow Corn Man] climbing on the cliff opposite. He made zigzag marks there and sang a song of the ye'iibicheii, and then came back to his own fire as before. The people went to him and asked him why he behaved in this way, and he said, "My children, the place is holy and I left my marks on it, and I left also all that Changing Woman gave me. In times to come when people are in trouble and need rain they should make offerings at this place and they will get what they need. That is why I have done it." (Luckert 1979:196)

Outside of the canyons we have also noticed one seemingly very important aspect of imagery at the sacred mountains of Dził Ná'oodilli and Ch'óol'í'í: there is none. A significant amount of time has been spent by the Bureau of Land Management patrolling and monitoring these areas. Efforts have been made to examine suitable rock easels at these places and absolutely no ceremonial imagery has been found. This is particularly puzzling considering that the sacred site known as To'aheedlí is known to have possessed a considerable array of Diné imagery before inundation by Navajo Lake.

Another aspect in the selection of place is the common co-occurrence of Navajo imagery with Anasazi



petroglyphs. P. Schaafsma (1963) noted that many of the Navajo sites were created at the same locations as Anasazi imagery. We have also noted examples where Anasazi imagery was purposely overlain by Diné imagery, and, on rare occasions, it is obvious that the Navajo refurbished certain Anasazi elements and incorporated them into their ritual compositions. This presents an interesting paradox in light of the way traditional Navajos view the Anasazi. On the one hand, things pertaining to the Anasazi are generally dangerous and are best left alone. On the other, Anasazi sites can be the locations for ritual disposal of ceremonial items (e.g., remaking rite figurines). Anasazi sites are also used to gather materials required for certain ritual needs (e.g., arrowpoints, skeletal fragments for Enemyway ceremonies, plants, beads, ceramic sherds). Anasazi petroglyph sites may have been treated in the same manner because they were already charged with power and sanctified by their association with the ancients.

## Continuity of Technique

The continuity of Navajo sand painting imagery over time was first noted by Matthews (1902), who observed virtually identical renditions of certain *ye'i* over a period of several years and, in some instances, considerable distances apart. The apparent stability of sand-painting designs and organization is well recognized by anyone studying the forms (cf. Wyman 1983:45-50). The continuity of some images found in sand paintings and Dinétah rock imagery has also been noted (Olin 1984; P. Schaafsma 1980, 1992).

Although there has been minimal analysis of contemporary sand paintings and Dinétah imagery, there are several easily recognizable forms common to both, including Holy People such as Fringe Mouth, Hump Back, female *ye'i* of the Nightway Chant, and the Hero Twins. Other forms of stable imagery that have been observed in both sand paintings and Dinétah imagery include corn plants, various animal forms, recurved bows, constellations, queue symbols, and ascending cloud terraces.

The techniques of Dinétah image making have been summarized and described by Polly Schaafsma (1963, 1980, 1992). Such techniques include the smoothing of surfaces for paint application and the combination of pecking and incising with painting. Some of the elements of carved images, such as necklaces, have been elaborated with painting (Schaafsma 1963:53). Smoothing of cliff faces may also be the method by which previously drawn images were erased prior to

creating new images or were ritually obliterated, such as are contemporary sand paintings (Schaafsma 1963:64, 1980:305).

Recent examination of site LA 11875 has revealed what we believe to be a previously undocumented early example of the actual process of rendering images of the Holy People. Site LA 11875 consists of a series of over fifty petroglyphs, pictographs, and “petrographs” (carved, then painted compositions) of known and currently unidentified ye’i, horses and riders, and other symbols. It is the most extensive composition of ye’i currently known in Dinétah. Numerous female ye’i (eleven), Fringe Mouths (five), and Hump Backs (six) are present as well as one example of Black God and six unidentified male ye’i.

The bodies of several of the figures at this site were obviously etched prior to painting (Figure 10.4). The torsos, legs, arms, and heads of the figures were incised first and then “clothed” by painting. In some instances there was no attempt to completely conform the clothing to the previously rendered body. In his research on sand paintings, Matthews (1902: 36) observed that “the naked bodies of the mythical figures are first drawn and



Figure 10.4.

Ye'i Number 18 at site LA 102399. The prepainting incising of the torso, arms, legs, and head is clearly visible. Such a technique is similar to image development in ceremonial sand painting.

then the clothing is put on.” Wyman (1983:59) has also observed that when a sand painting is created, the bodies are painted first as if naked and then the clothing is added.

This type of painting should not be confused with that observed by P. Schaafsma (1963:53). Schaafsma observed that in one instance, the incised necklace of a ye'i had been enhanced with paint within the grooves. In another figure, she noted that although the skirt was painted, the remainder of the figure was incised. We suspect that a great many of the petroglyphs of the Dinétah have been elaborated with paint, but the effects of weather have removed visible traces of the color.

An additional nearby site (LA 102399) shows evidence

of repeated use of the same images. The imagery consists of a pantheon of female ye'i, Fringe Mouths and Hump Backs located in a small overhang. Most of the images obviously have been repainted as indicated by a different shade of paint overlying the original composition. Olin (1972:109) mentions that sites at To'aheadli were repainted each time they were called into use.

The repair and repainting of masks and other ritual equipment among the Navajo is well known. Site LA 102399 may represent an example of the process of recharging or revitalizing Navajo ceremonial imagery much like that of other ritual equipment.

## Conclusions

The results of Dinétah ceremonial imagery research over the past thirty years demonstrate significant ritual continuity between the past and the present. The identification of this continuity is an important component of the cultural history of the Dinétah. It is equally as important to demonstrate this behavior as it is to retrieve and describe material remains from other archaeological contexts of the period.

Several areas of investigation will continue to be of importance for imagery research in the Dinétah. Further consideration of the level of Navajo and Puebloan interaction and the dating of that interaction will be aided by additional analysis and documentation of more image sites. The ongoing excavations and analysis of Navajo sites in the Dinétah as a result of energy development will contribute significantly to understanding some key events in Dinétah history (e.g., importance of corn and livestock in the economy; trade and contact with non-Navajo groups). We are also optimistic that further examination of documented sand paintings and ritual narratives will expand our capabilities to interpret some of the imagery. Finally, increasing spiritual and scholarly interest in the Dinétah

by Navajos will broaden our understanding of what Dinétah and its imagery mean to them.

*Acknowledgments.* We would like to thank several institutions and individuals for their encouragement and assistance in our efforts. The Farmington Public Library and the research library at the San Juan County Museum have been very helpful in providing access to records and in arranging interlibrary loans. Peggy Gaudy, archaeologist with the BLM in Farmington, has helped in fieldwork and reviewed and critiqued earlier drafts of this article. Last but not least we thank our wives, Denise and Elizabeth, who have on more than one occasion played the part of "Dinétah widows" while we were out and about looking for the Holy People.

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## Material Correlates of Early Navajo Ceremonialism

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### Introduction

Navajo witchcraft is a poorly understood aspect of Navajo religion, due in large part to the unwillingness of Navajos to discuss the subject. As recently as World War II, Clyde Kluckhohn (1944) questioned whether Navajo witchcraft included actual practice or was restricted to verbal and psychological occurrences. Recent archaeological data collected from three sites in New Mexico represent evidence of witchcraft ceremonies in both the pre- and post-Revolt periods. Two of these sites (LA 78481 and LA 78784) are pre-Revolt sites located in the traditional Navajo homeland of Dinétah. The third site (LA 88772) is a turn-of-the-century habitation site north of Gallup, New Mexico. The presence of witchcraft, however, implies the presence of the larger body of belief that constitutes Navajo religion.

Navajo religion is thought to have begun as a Northern Athapaskan individualistic vision-quest belief system that was heavily modified during contact with Pueblo Indians (Sandner 1979:96; Underhill 1956:5).



Understanding this religious synthesis is partially dependent on archaeological data, including spatial relationships, material culture, use of symbols, chronology, and inferences about nonmaterial culture drawn from material remains. Until recently, this cultural development was thought to have occurred as a result of direct contact between Navajo and Pueblo refugees immediately after the Pueblo Revolt of 1692. In this scenario, the

Pueblo refugees came to the Navajo for shelter and the two groups lived together for some time. The Navajo adopted distinctive cultural elements of the Puebloans during this time of direct contact.

The Largo Canyon area, the Navajo Reservoir District, and Gobernador Canyon together compose Dinétah, or the Navajo homeland. Largo Canyon and the Navajo Reservoir District are the two areas where early Navajo rock art is concentrated (Wyman 1983:36-37). Much of the rock art contains clearly Puebloan symbolic elements that were probably derived from Pueblo walls, altars, and sand paintings (P. Schaafsma 1966:9-10). Ritual objects used for chants have been found in this area; such objects date to the post-Revolt eighteenth century (Sandner 1979: 95). Many aspects of Navajo culture, such as clans, matrilineal descent, ritual, and the origin myth are thought to have been acquired from the refugees during the post-Revolt Gobernador phase (Hester 1962a:91). The spatial association of material remains (including ritual items) and Puebloan-influenced symbols in the rock art are the archaeological evidence that, placed in their chronological framework and in concert with inferences about nonmaterial culture, are used to interpret the development of Navajo culture.

In the last few years, this interpretation has been questioned (Hogan 1991; L. S. Reed and Reed 1992b). Evidence for the pre-Revolt Dinétah phase has accumulated, suggesting that much of what constitutes Navajo culture predates the Pueblo Revolt. Whether the interaction with the Pueblos occurred as a result of

Pueblo Indians living with the Navajo after the Revolt, as a result of interaction during alliance formation (Reed and Reed 1992b), or in a relationship similar to the Pueblo/Plains macro-economy (Baugh 1984) during the Dinétah phase remains an important question. Only when the chronology is clear can the cultural dynamics be studied. There is an important difference between the kinds of social interactions and cultural processes that occur between groups living together and groups interacting socially and/or economically. Reviews and interpretations of the historical record are instructive (e.g., Hogan 1991; Locke 1992:xi), but archaeological data are equally important to the definition and analysis of the interaction.

Recent archaeological investigations have produced information relevant to the above-described issues (Ayers and Reed 1993; Proper 1992a, 1992b; S. Wilcox 1991). The data are again spatial, temporal, material, and symbolic. The two pre-Revolt sites (LA 78481 and LA 78784) are located in a very auspicious setting; and although less is known regarding the third (LA 88772), it is still important as evidence of cultural continuity. The chronological associations of the sites are with the Dinétah and

historic periods. The archaeological evidence can best be interpreted in light of both ethnographic and archaeological data from Navajo and Hopi sources, documenting the very early presence of uniquely Navajo culture.

## Cultural and Geographic Settings

### *Cultural Setting*

Kluckhohn (1944) identifies four types of witchcraft based on unique identifiers in the Navajo language. These types include Witchery, Sorcery, Wizardry, and Frenzy Witchcraft and appear to be categorized by their relationship to Navajo mythology and by the material required in their practice. The Witchery Way comes from the origin myth, begun by First Man and First Woman. Witchery is associated with corpses and corpse powder, incest, and were-animals (Kluckhohn 1944:25-30). The practice of Witchery is thought to have its beginnings in the pre-emergence period. Sorcery is considered a subdivision of the Witchery Way and is enchantment by spell. A part of an individual is buried with a piece of a corpse, in a grave or under a lightning-struck tree. A spell is then sung. Singing “a good prayer backwards” or the “praying a person down into the ground prayer” are two forms of a spell (Kluckhohn 1944:31). One song relates to the visit of the Hero Twins to their father the sun and “is said to have been ‘employed in the old days’ only against monsters and enemy tribes” (Kluckhohn 1944:3 ). Oakes and Campbell (1991) report on “Where the Two Came to Their Father,” a war ceremonial that was known by

only two singers in the 1940s. Their informant stated that this ceremony was used prior to setting out on a raid (Oakes and Campbell 1991:13). He also reported on related ceremonies:

There is another side to this ceremonial, called Enemy Monster Way, which is used in enemy country on the battlefield. The prayers are against monsters, enemies, and evil. [Their informant] refused to give them. "They are not good," he said. "The prayers are given by Monster Slayer and his brother Child Born of Water. . . . There is still another side, which [their informant] does not use. It is called Witchcraft Way. (Oakes and Campbell 1991:13-14)

Another technique of sorcerers is the use of physical images of the person to be cursed. Kluckhohn (1944:32) notes that this practice seems restricted to acculturated areas of the reservation and suspects diffusion from Spanish or Eastern Pueblo sources. The Eagle Pit Way is an alternate form of Sorcery and is considered the most dangerous form of witchcraft,

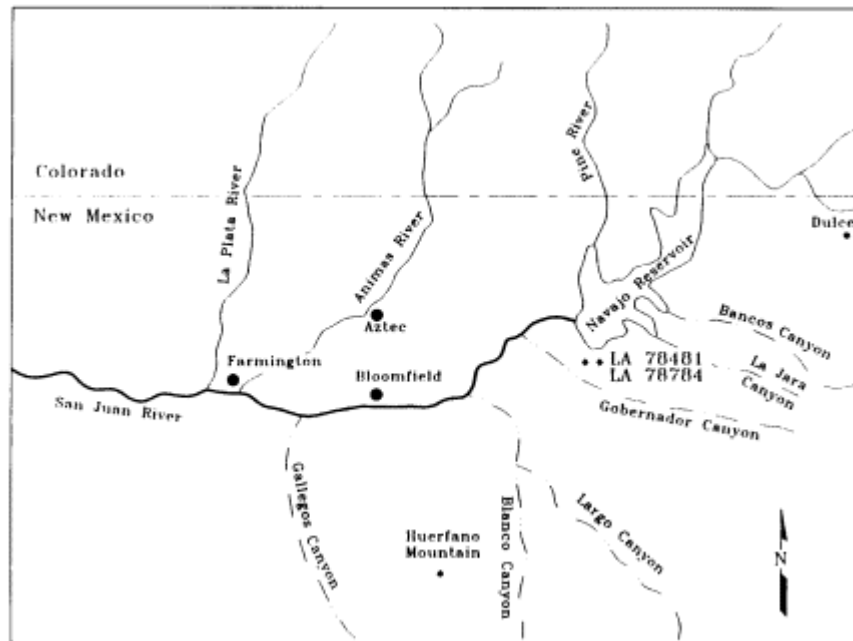


Figure 11.1.

Location of sites LA 78481 and LA 78784 in the Dinéah.

with the possible exception of Frenzy Witchcraft (Kluckhohn 1944:44, 45, 190). It may be part of a larger, extinct ceremonial complex known as “a woman’s piece of wood” or “a woman’s song.” Neither of the other two forms of witchcraft, Wizardry and Frenzy Witchcraft, are of particular interest to this discussion. Wizardry involves the placing of a foreign object into a victim. Frenzy Witchcraft is associated with the use of plants including *Datura* (Kluckhohn 1944:36, 37).

### *Geographic Setting*

The location of LA 78481 and LA 78784 (Figure 11.1) is significant in terms of Navajo archaeology and ceremonialism. The Cross Hogan site (LA 78481) and the Effigy site (LA 78784) are unique among all of the Navajo forked-stick hogans excavated in the Dinéah,

yet they are both located in the same small rincon. They are south of Frances Mesa near Smith Pass and north of Gobernador Canyon approximately one mile south of the confluence of the Pine and the San Juan Rivers. The Pine-San Juan confluence is the center of the Navajo universe, where the two sacred rivers of the origin myth cross, and the traditional home of the Hero

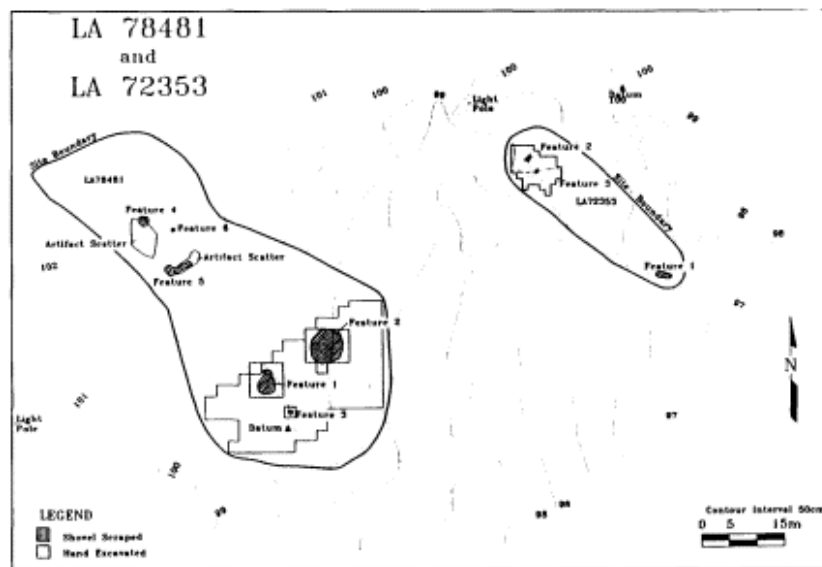


Figure 11.2.

Map of the Cross Hogan site (LA 78481) and adjacent cultural features.

Twins (Sandner 1979:95). The Twin War Gods Site, near the confluence, is a rock art site containing representations of the Hero Twins, and was used as a shrine (Eddy 1966:23). Given the association of the Hero Twins with Witchery through the creation myth, Sorcery (as illustrated by the use of the “Where the Two Came to Their Father” song and associated war ceremonies), and war in general, the location of LA 78481 and LA 78784 in relationship to the home of the Hero Twins is an important component of the interpretation of these two sites. There is speculation that individual canyons in Dinétah may have been reserved for the exclusive use of specific ceremonies or specific singers (Copeland and Rogers, this volume; P. Schaafsma 1992:3 5). The proximity of these two sites and their association with the Witchery Way tends to support this hypothesis. If true, we can predict that similar sites are also present in the area.

### LA 78481: The Cross Hogan Site

LA 78481 is bisected by the Smith Pass Road on the south side



of Frances Mesa (Figure 11.2). Excavated portions were on the south side of the road and included two hogans and a hearth. North of the road are surface indications of at least three additional features. Two of the unexcavated fea-

tures may be structures, and the third appears to be a hearth (Ayers and Reed 1993).

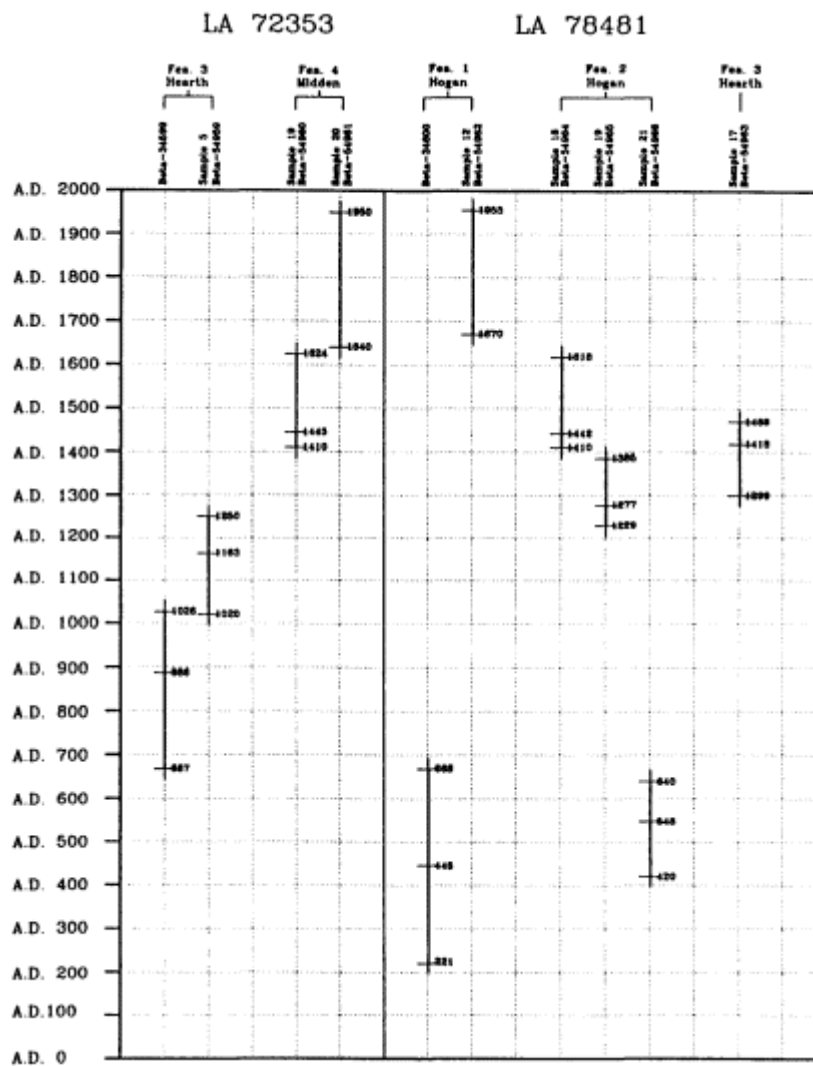
Site LA 72353 is another Dinétah phase site located slightly east of LA 78481 (see Figure 11.2). It is almost certainly a part of the same occupational event as the Cross Hogan site; the sites received individual site numbers because of the way in which they were found and recorded. The Cross Hogan site was discovered during topsoil clearing after LA 72353 was recorded during the original survey. Features include a slab-lined hearth and a ramada. The domestic nature of the archaeological remains at this site complements those of the Cross Hogan site.

Assuming that the two sites are in fact portions of the same site (as did the excavators), three lines of chronological evidence indicate a sixteenth- or seventeenth-century occupation. First, there were no Gobernador Polychrome ceramics present; all of the Navajo ceramics were Dinétah Grayware. Second, sherds of one or two types of Rio Grande Glazeware (D and E) were present. One rim sherd of San Lazaro (Glazeware D) Polychrome was recovered from LA 72353 and four sherds of Glazeware D or E were recovered from LA 78481. The four sherds from the Cross Hogan site were not rim sherds, so it was impossible to discriminate between Glaze D and E. These glazewares have a very limited time range. Glaze D was manufactured from A.D. 1490 to 1515, while Glaze E was manufactured from A.D. 1515 to 1625 (Ayers and Reed 1993:6, 1211, 125; L. S. Reed and Reed 1992b:99). Finally, four radiocarbon dates, three

of which are from the Cross Hogan itself, provide tree-ring calibrated ages in the fifteenth through the seventeenth centuries (Table 11.1). Two other radiocarbon dates range into the present and four radiocarbon dates are of Anasazi age. The latter we attribute to either contamination or reuse of timbers from an Anasazi structure. They are too old for the “old wood” argument (Schiffer 1987) to account for their age. If we accept that there is an active cross-section effect in the radiocarbon ages (F. E. Smiley 1985), the A.D. 1400-1650 age of the radiocarbon dates fits rather well with the age of the Dinétah Gray- and Glazeware ceramics. The Glazewares overlap in age at A.D. 1515. If the pots that were the source of the Glazeware sherds were in systemic context (Schiffer 1987) for several years to several decades, and given that the radiocarbon dates are too old by 100-200 years, an age estimate of A.D. 1525-1575 seems reasonable.

Dendrochronological and archaeomagnetic samples were analyzed with negative results. Obsidian hydration rind thicknesses were measured; thermal cells are still in the ground and the dates are as yet unavailable. The rind thicknesses were  $2.7 \pm .1$ ,  $3.1 \pm .2$ ,  $3.2 \pm .2$ ,  $3.6 \pm .2$ , and  $14.0 \pm .2$  microns. Because the site is in an alluvial

TABLE 11.1. Calibrated Radiocarbon Dates



setting, it is possible that the obsidian artifacts have suffered exposure and reburial on a number of occasions, which may render the hydration dates meaningless. Nevertheless, the relative integrity of artifact patterning and intact nature of the features suggests that there has been little, if any, disturbance or displacement.

Feature 1 is a small, burned, forked-stick hogan about 3.2 m in diameter with a central hearth. Several hundred sherds ( $n = 460$ ) were on the floor (369 from

the same olla were inside and just north of the doorway),



Figure 11.3.

The Cross Hogan prior to excavation. Note burned timbers.

including one painted Dinétah Gray sherd with a spiral design in black mineral paint (Ayers and Reed 1993: 19). We know of no other examples of painted Dinétah Grayware. The lithic assemblage, both ground stone and flaked stone, indicated that the hogan served a domestic function.

Feature 2 was believed to be a small hearth prior to its excavation. The butt of a single charred structural member which protruded from the ground surface was crushed by a bulldozer. The crushing created an oval area of stained sediment that appeared to be a small hearth. Excavation of the feature revealed a large, circular, burned forked-stick hogan with a diameter of approximately 6.3 m (Figure 11.3). Many of the structural members had uncharred butts which were used as dendrochronological samples, but none dated.

Feature 2 had three interior floor features (Figure 11.4):

a hearth, a cross, and a standing stone monolith. The hearth is oval-shaped, measuring approximately 90 cm east/west by 76 cm north/south, and was situated slightly east of the center of the hogan. The cross, located 70 cm west of the hearth and approximately 84 cm west of the hogan's center point, was created by the excavation of two intersecting trenches 5 cm deep that formed a "cross" shape. The third feature is a large monolith of unmodified sandstone which was placed in front of the doorway in relation to the hearth, but was well within the hogan itself. The monolith was un-

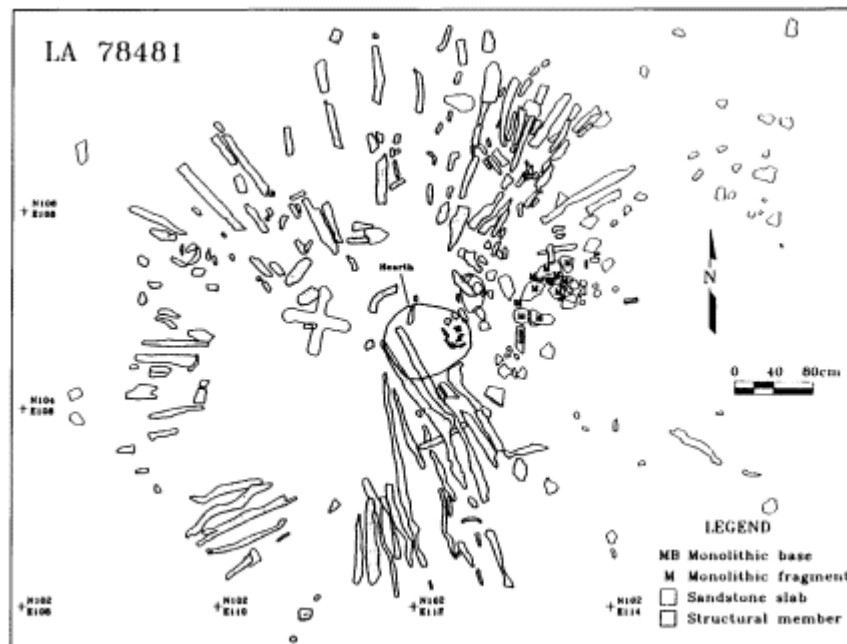


Figure 11.4.

Plan map of the Cross Hogan and extramural features.

shaped sandstone; one face was weathered to a smooth surface. It was placed upright in a tight socketlike hole 12 cm deep, and would have stood at least 84 cm above the hogan floor. The monolith was broken at floor level by a blow to the southern portion of its western face prior to the burning of the hogan. The cross is the most interesting of the features (Figure 11.5). Three arms were 36 cm in length from the center point; the eastern arm was 32 cm long. The width of the cross arms was 11 to 12 cm. The north and west arms were widened at their ends to 15 cm. Each of the widened ends was expanded in a convex manner on one side. The western arm expanded southward, and the northern arm expanded to the east. The trenches had vertical walls that intersected the flat floor of the feature at right angles. The orientation of the north-south arm is nine



degrees east of true north. The east-west arm is oriented to 100 degrees 30' true, or 10.5 degrees south of east.

Clean sand was placed over the cross and part of the hogan floor prior to burning the hogan. During excavation, the cross was encountered after removing the sand and was thought to be a rodent burrow.

Therefore, some of the detail that could have been collected was not recovered. Much information of interest was collected, however. The entire floor of the



Figure 11.5.

The cross inside the hogan and other internal features.

cross and approximately the lowest 1 cm of the walls were coated with a white substance that appeared to be calcium carbonate. Later analysis found this sediment to be white quartz silt (Morgenstein 1993b).

The fill, consolidated due to the method of excavation, was divided into individual samples for flotation and pollen analysis, and a large portion was reserved for analysis of physical and chemical properties. Flotation produced five unburned cheno-am seeds and three unburned portulaca (purslane) seeds. Pollen was similar to that of the modern control sample except for high percentages of pinyon pine and juniper and the presence of some corn pollen. Pollen samples were collected from various locations on the hogan floor. Four samples were collected around features at each of the cardinal directions. Samples were taken from the floor at the ends of each arm of the cross. All of these were similar to the control except for the presence of

corn pollen in the southern sample. Samples collected around the hearth contained corn pollen except on the west. Other samples from the hogan floor lacked evidence of corn.

Sediment analysis of the cross fill included chemical tests, microscopic examination of loose sediment grains, particle size analysis, and microscopic analysis of peds. Based solely on size, two populations of sand grains were identified. The coarse fraction derives from the weathering of local bedrock and includes mudstone, sandstone, quartz, garnet, mag-

netite, muscovite, charcoal, and feldspar. The sand-sized quartz grains are frosted and rounded. The fine fraction consists of coarse silt-sized grains and smaller, almost pure, quartz and feldspar grains with a pinkish color. The quartz grains from the fine fraction are subangular and not frosted. Based on analysis of the peds, additional variability was observed.

During the ped analysis, both vertical and horizontal variability was seen. Microbedding structures 1 to 3 mm thick were identified. These are fine laminations of the quartz-feldspar silt (the fine fraction defined during particle size analysis) that horizontally crosscut the peds, producing vertical banding. Horizontal variation in color was present due to changes in the coarse-grained sediment composition. Some peds contained charcoal dust (black), some were yellowish red with angular sandstone fragments, and others which contained gray mudstone were gray, white, and light brown. The presence of charcoal dust may be the result of bioturbation; it could have been transported from the hogan floor above the cross. It may, however, have been deliberately added to the cross fill. There was sufficient bioturbation to suspect that the sediments were originally segregated, both horizontally and vertically, by color and composition, with only the thin layers of pink quartz-feldspar silt and the white quartz sand coating the floor and sides as the only well-preserved remnant of the original pattern.

The chemical analysis found no carbonates. As mentioned earlier, the white substance that lined the

cross was not calcium carbonate as was thought; rather, it was fine-grained white quartz sand.

The results of the sediment analysis led to several conclusions. First, at least two sources of sediment were exploited to produce the cross fill. One was derived from locally weathering bedrock, but the other is an almost pure mineral-based (quartz and feldspar) anthrosol derived from an unknown alluvial sediment (e.g., transported from its original alluvial source and deposited by human action). Second, the cross was lined, at least along the edges, with fine white quartz sand. Third, thin layers of the pink fine-grained quartz and feldspar anthrosol were placed in various locations within the cross. Fourth, horizontal variation in color due to the presence and/or absence of charcoal, mudstone, and sandstone is present, but the variability in color and composition is blurred by bioturbation. The horizontal color variation included white, yellow-red, gray to brown, and black. Vertically, the fine-grained quartz silt was probably used to produce both white and pink colors; the addition of feldspar would change the white sediment to pink.

The associated artifact assemblage is not typical of a domestic hogan. Dinétah Gray sherds ( $n = 344$ ) were scattered about the floor of the hogan. There was a concentration of sherds ( $n = 175$ ) present between the hearth

and the monolith in a manner similar to the concentration in Feature 1. Flaked and ground stone artifacts (n = 15) were also present, but in very low densities. Only nine pieces of debitage and a single obsidian core remnant were found, even though the matrix from two entire 2-by-2-m units was screened through 1/16 in. wire mesh. Four pieces of ground stone were recovered. One came from roof fall, and may have been used as chinking. Two fragments from different metates and one piece of ground petrified wood were recovered from the floor. A single piece of red hematite was recovered from the southwest quarter of the hogan, but may have been introduced as roof fall.

Based on form, context, and sediment analysis, the cross can be interpreted as a dry painting, or part of a dry painting. A combination of sediments and probably charcoal dust was used to produce areas and/or layers of different colors within the cross. The colors included white (pure quartz silt), pink (feldspar and quartz silt), yellowish red (angular sandstone fragments), gray, white to light brown (mudstone which may be just background), and probably black (charcoal dust). The artifact assemblage is atypical for a residential feature, and the size of the hogan is very large. It seems reasonable to ascribe a ceremonial purpose to the hogan and to interpret the cross as a dry painting.

Hugh Rogers discussed the site with a Navajo informant, showing him the site plan view maps and describing the various features. His informant identified the site as related to a war ceremonial, where the enemy is sung into the ground. The informant further indicated

that he knows of two other, more recent but identical features in northwestern New Mexico.

Crosses are not uncommon in Navajo sand painting or witchcraft ceremonies. Kluckhohn's mention (1944:31) of the use of the "praying a person down into the ground prayer" as a part of Sorcery is congruent with the concept of the war ceremony as described by Rogers's informant, as is Oakes's and Campbell's description (1991) of a war ceremonial. The spatial association with the home of Hero Twins, the sorcerous use of the "Where the Two Came to Their Father" song, and the witching of enemies complements this interpretation, as does the use of the "Bringing up Prayer" as a cure for Witchcraft (Kluckhohn 1944:50).

A historic example of cross-based witchcraft that serves to further illustrate the association of a cross with Sorcery is provided by W. Roberts (1987:107-8). In her biography of Stokes Carson, she describes how, in 1939, Ben Wetherill found a cross drawn in the sand outside his house; the cross had been placed there by a sorcerer infuriated by the government's stock-reduction program.

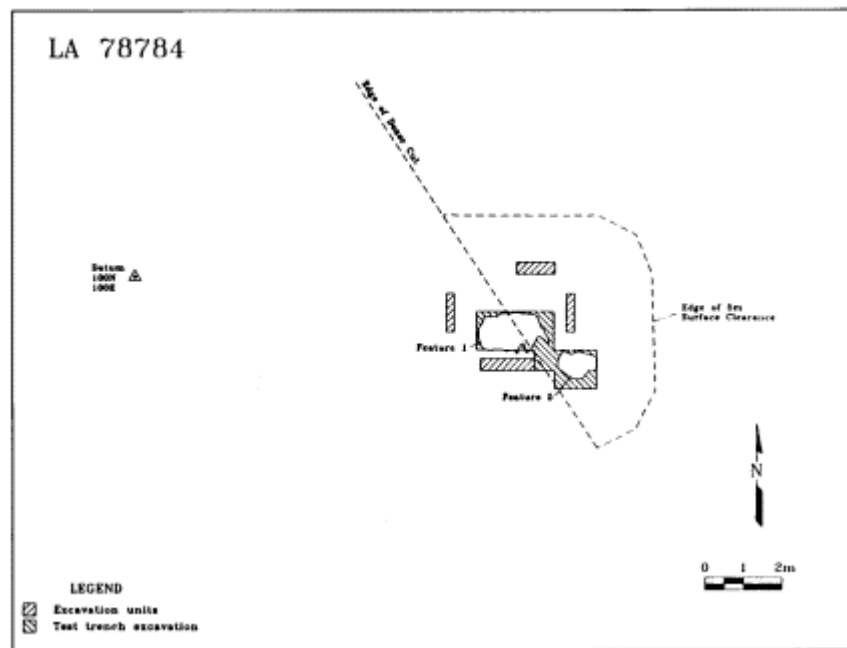


Figure 11.6.  
Plan map of the Effigy site (LA 78784).

Feature 1 at the site is interpreted as a domestic hogan, based on its size, internal organization, and artifact assemblage. Feature 2, the Cross Hogan, is almost twice as large as Feature 1, contains very few artifacts, and has internal features indicative of ceremonial activities. Based on these data, it is probable that the Cross Hogan site served as a habitation/ceremonial site sometime in the sixteenth or seventeenth century. Its location was probably carefully selected because of its proximity to the confluence of the Pine and the San Juan Rivers, home of the Hero Twins. The use of a cross decorated with sand- and silt-sized mineral pigments in a special-purpose structure strongly suggests the existence of elements of Navajo ritual and related material culture at a very early date.

LA 78784: The Effigy Site



The Effigy site is located near the Cross Hogan site in the same rincón below Smith Pass (see Figure 11.1). LA 78784 is a probable Gobernador phase Navajo ceremonial site consisting of a structure (Feature 1) and a hearth (Feature 5) in an area 4 m north-south by 7 m east-west (Figure 11.6). Although only a portion of the original structure remains, feature

morphology, recovered artifacts, and chronometric data indicate a Navajo cultural affiliation.

Feature 1 is a hogan, the western two thirds of which were disturbed by a bulldozer. Although natural erosion has destroyed the southern portion of the structure, it appears to have originally been circular. The remaining portion of the structure was clearly defined, and measured 3.06 m east-west by 1.57 m north-south. The structure contained two internal features. Feature 1A is a subfloor pit located within the structure at the western edge. Feature 1B is a probable posthole 12 cm in diameter and 5 cm deep located 26 cm south of the center of the north wall. No interior hearth was found. Like the Cross Hogan, Feature 1 was deliberately burned.

Artifacts recovered from Feature 1 include twenty-two pieces of unutilized lithic debitage, two unifacially retouched flakes, two complete projectile points and one projectile point fragment, three cores, and one fire-cracked milling slab. Two burned Dinétah Gray jar sherds compose the ceramic assemblage from the hogan.

Radiocarbon analysis of two charcoal samples taken from Feature 1 produced dates of  $160 \pm 50$  and  $160 \pm 60$  BP (uncalibrated). The average of the two calibrated dates (two-sigma range) provides dates between A.D. 1654 and 1955. At two sigma, there is an 83 percent probability that the dates fall between A.D. 1665 and 1891 and A.D. 1663 and 1896, respectively. Based on these data, it would appear that the structure dates between A.D. 1654 and the Navajo abandonment of the

area in the mid-to-late A.D. 1700s. These dates are either during the Dinétah phase (A.D. 1500s-1700) or the Gobernador phase (A.D. 1700-1775).

Feature 1A, a subfloor pit, contained a ground and painted anthropomorphic stone effigy (Figures 11.7 and 11.8). It was placed face down in the subfloor pit on a layer of sand 4 cm deep. The pit was then filled with sandy clay. The floor above the pit was undisturbed, and no charcoal or oxidation was present within Feature 1A, which indicates that the pit was sealed prior to the burning of the structure (Figure 1.9).

Pollen from the pit was vastly different from that of the rest of the hogan. The pollen in the hogan consisted of cheno-ams, Low- and High-spine Compositae, sagebrush (*Artemesia*), grass (Gramineae), Mormon tea (*Ephedra*), juniper (*Juniperus*), pinyon pine (*Pinus edulis*), undifferentiated pine (*Pinus* sp.), Ponderosa pine (*Pinus ponderosa*) and spruce (*Picea*). The pollen in the subfloor pit, however, consisted of cattail (*Typha* sp.) (56.5 percent tetrad and monad pollen), 1.5 percent maize (*Zea*), and 0.5 percent beeweed (*Cleome*) pollen (Gish 1991). Each of these plants has a ritual use. Elmore (1944:24) notes that "In the old days, the pollen from



Figure 11.7.  
The effigy figurine from LA 78784.

this plant [cattail] was most used by the Navajo in their ceremonials, but of later years, corn (*Zea mays*) pollen is commonly employed.” Several aggregates of maize pollen were observed, the largest consisting of five grains. This suggests that maize pollen was deliberately introduced into the pit, and this inference is supported by the absence of corn pollen on the hogan floor. Beeweed is most known as a food plant; however, “When the masks for the Night Chant are finished, a general feast is given in which tea made from the beeweed is drunk” (Elmore 1944:5 ). The use of cattail pollen in sand paintings used for Sorcery is described

by one of Kluckhohn's informants (1944:153). Thus, a ceremonial significance for the cattail and beeweed pollen in this feature is also a strong possibility.

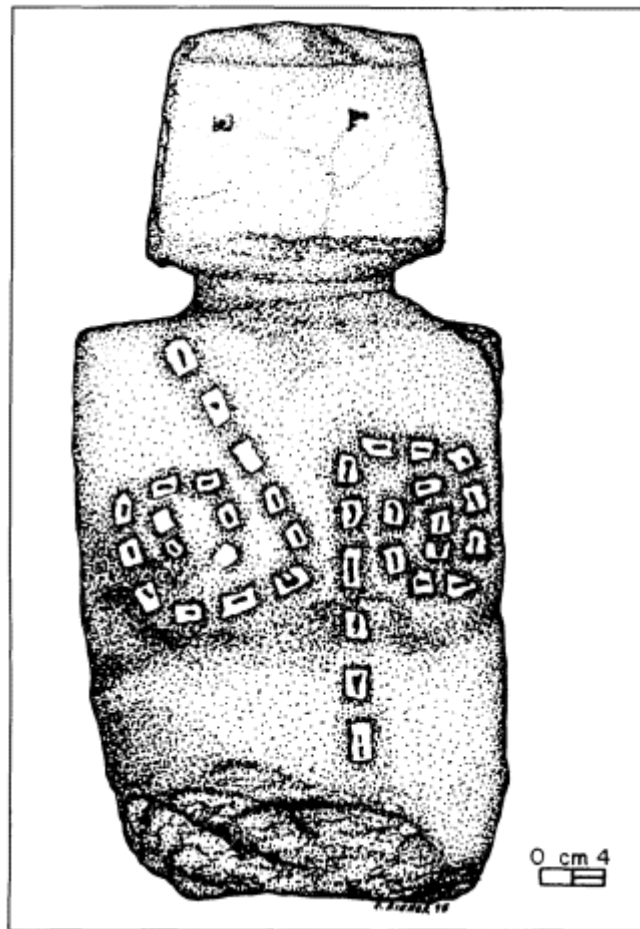


Figure 11.8.

Drawing of the effigy figurine from LA 78784.

The effigy is 53 cm long, 26 cm wide, 7 cm thick, and was shaped by grinding and pecking (see Figures 11.7 and 11.8). The dorsal side of the effigy is smooth with rounded edges, and the ventral side is flat with a painted design. A small, shallow hole was drilled in the top of the head and a depression was pecked into the dorsal side slightly below and left of center. The lower end of the figure is unshaped and tapers slightly. The stone was painted black overall, and designs on the ventral surface were painted in white. The face consists of a 10-cm-wide horizontal band painted white. Two eyes are painted on the face with a black pigment that

differs from the black paint that covers the rest of the stone. Each eye con-

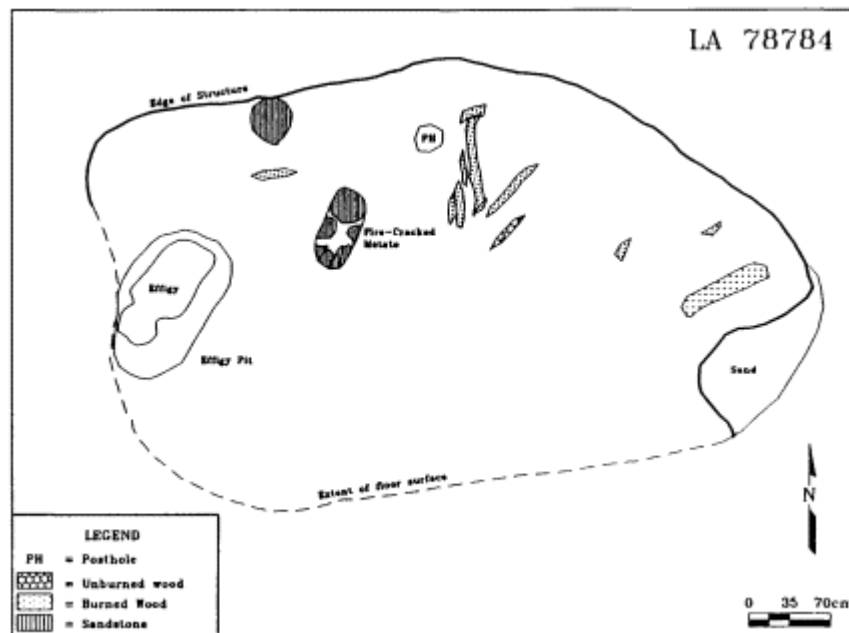


Figure 11.9.  
Plan map of hogan with effigy pit feature.

sists of a single vertical line with two horizontal lines extending outward from the vertical line, one at the top and the other at the center. The painted design on the body of the effigy consists of two separate series of white rectangles with black lines in the center. One series, consisting of seventeen dashed rectangles, begins at the left shoulder near the neck and extends at an angle to the center of the body; at this point, the rectangles turn outward and spiral to the left. The second series consists of eighteen dashed rectangles and begins in the lower portion of the body slightly right of the center. The rectangles go up the body and spiral to the right. The rectangles are painted in white over the black paint. The dashes within the rectangles are black, but, like the eyes, are a different pigment from the black paint covering the body.

The tapered base and depression on the back may



indicate that the effigy was intended to stand upright in a base with a stick supporting the back via the pecked depression. The small hole in the top of the head may have been used as a “socket” for holding ceremonial items such as pollen or feathers. The square head may indicate that the effigy is female, or that it is a godlike figure. The painted decoration on the body is identical to designs on “open work” shirts and kilts portrayed on kiva wall mu-



Figure 11.10.

Pictograph at LA 80981 near Effigy site. Note similarity to effigy. rals and on Sityatki Polychrome bowls at Awatovi (Dutton 1963; W. Smith 1952).

The use of effigies in Sorcery is well recognized. Effigies, or images in the form of the victim, are thought by Kluckhohn (1944:32) to have diffused from the Spaniards. References to “putting it into the ground” are made by Kluckhohn’s informants (1944:189). This parallels the act of praying a person down into the ground mentioned in reference to the Cross Hogan. Often, these effigies are buried face down. In *The Broken Circle*, Barker (1992) describes the manufacture of an effigy used for witchcraft. His description is based on data from an informant knowledgeable about events surrounding the murder of three men in 1974. In this description, the victim was represented by a small stone on which symbols were carved; the stone was then buried face down.

Two nearby sites contribute to the context in which we interpret the Effigy site (S. Wilcox 1991). Site LA 80981

is a pictograph and petroglyph panel located 180 m (600 ft) to the northwest of LA 78784. It contains an anthropomorphic pictograph bearing a remarkable resemblance to the effigy (Figure 11.10). Because of the ceremonial nature of the Effigy site, the known affiliation of rock art with religion, and the proximity of the two sites, it is probable that they are related. Site LA 80982 is an eagle trap located on the western edge of the same butte as the rock art panel

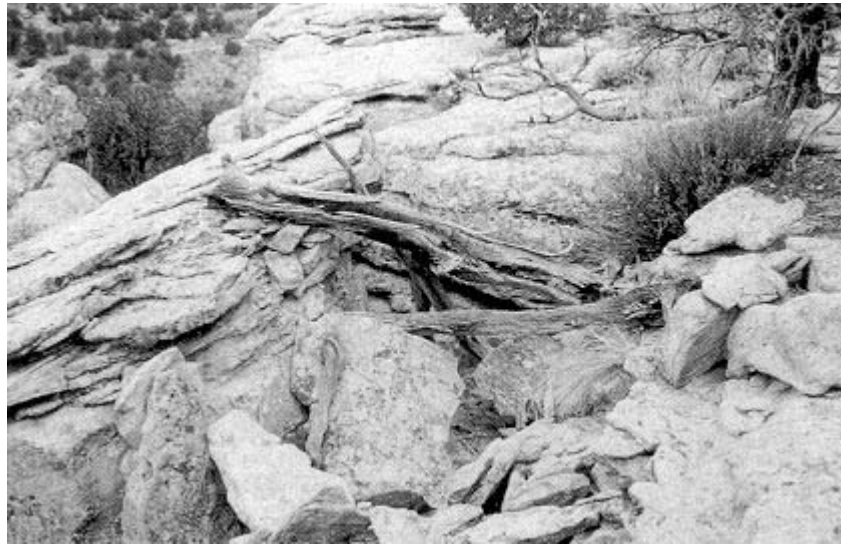


Figure 11.11.

The eagle catch pit (LA 80982) near Effigy site.

(Figure 11.11). The Eagle Pit Way may be one of the most powerful forms of witchcraft (Kluckhohn 1944:190). The association of the eagle trap, the rock art, and the Effigy site implies that a constellation of events was conducted as part of the effigy burial.

#### The Yah-Ta-Hey Effigy: LA 88772

This effigy is from a multicomponent Basketmaker III and Navajo site north of Gallup, New Mexico. The Navajo component dates to the late nineteenth or early twentieth century (Proper 1992b:7). The Basketmaker and Navajo components occur in discrete concentrations; the effigy is associated with the Navajo component. The Navajo component contains domestic debris and a probable midden, suggesting that a habitation is nearby. The site is disturbed, and has not been excavated. Therefore, it is currently of less interest archaeologically than the previously discussed sites. The effigy recovered from this historic site, however,

provides an important intermediate point in time along the evidentiary chain between the sixteenth century and the present; it links the prehistoric and modern use of Sorcery. There is little doubt that there is continuity in Navajo culture



Figure 11.12.  
The effigy from LA 88772.

from prehistory to the present; this artifact demonstrates that witchcraft was one element of that culture and that there is a centuries-long continuum of the practice of witchcraft in Navajo culture.

During the survey of a small access road just west of the town of Yah-ta-hey, a manolike artifact was recovered from LA 88772. The artifact is ground and pigmented such that it appears to represent a face (Figure 11.12). It was therefore submitted for analysis to ensure that the pigmentation and grinding were in fact intentional and not the result of automobile traffic. Analysis included examination by television camera magnification, microscopic surface analysis, and chemical tests of selected microscopic samples (Morgenstein 1993a). The surface was tested for the presence of calcium carbonate with hydrochloric acid (Hcl 30 percent).

Analysis identified deliberately modified pigment and designs etched or inscribed into some of the ground areas (Morgenstein 1993a). Calcium carbonate was found on all surfaces as a minor precipitate. Lichen on the surface was found to be carbonate-impregnated. These facts suggest that the artifact was exposed on the surface for a time sufficient for lichens to colonize the surface. Later, a poorly developed K soil horizon developed

around the artifact, or the artifact was buried in the K horizon. Finally, the artifact was exposed, probably by road construction (Morgenstein 1993a).

The dark red linear stain that divides the artifact longitudinally was determined to be hematite (an iron hydroxide), which was probably formed by fracture filling in the sandstone outcrop from which the rock originally came. It contains a series of striations that occur at about 45 degrees to the long axis of the stain. The striae range from 0.01 to about 0.03 mm in width; topographic heights are smaller than the widths. The orientation of the striae is consistent throughout the length of the stain. In addition, punch dots are present.

The eyes were produced by deep carving. The nose and neck were similarly formed, although the carving was not as deep. Wavy lines were created by punch dots in the mouth. The dots are more closely spaced in the mouth than in the hematite line.

Analysis confirmed that deliberate modification of the specimen had occurred, rather than the random modification of postdepositional damage, especially by vehicular traffic. Given the deliberate modification of the stone to represent a face, there seems little doubt that this artifact is an effigy. Based on descriptions of the use of effigies in the practice of witchcraft and the absence of probable alternate functions, this artifact is interpretable as evidence for the practice of witchcraft. Based on the turn-of-the-century age of the site, the effigy provides a midpoint between historic descriptions and earlier archaeological evidence for witchcraft.



## Conclusions

Based on Navajo archaeology and ethnography, we have attempted to explain the function of two prehistoric sites and an artifact from a more recent Navajo site. Both of the prehistoric sites can be understood in light of traditional Navajo religion. Although these sites relate directly only to a limited part of that religion (witchcraft), the presence of a small part of the religion implies the presence of other portions, including the origin myth and the use of sand paintings. We have attempted to provide this context in historical, spatial, chronological, symbolic, and ultimately cultural terms. This has then permitted the interpretation of the archaeological deposits of two sites.

At a minimum, we have given evidence of the practice of witchcraft, a part of Navajo culture poorly documented in material terms and, as far as we know, previously unknown in the archaeological record. We have described one of the earliest manifestations of dry painting and a material correlate of the Witchery Way. This marks one of the earliest known examples

of a type of religious expression still common today. The use of an effigy at a Dinétah phase site suggests that Kluckhohn may be incorrect in his assumption that the use of effigies is derived ultimately from the Spaniards. Finally, we have shown a continuum of the practice of witchcraft from pre-Revolt through modern times. This is a significant demonstration of cultural continuity based on ideology but using archaeological methods.

Based on a chronology of radiocarbon dates and ceramic cross dating, we have shown evidence for Navajo religion, perhaps as early as A.D. 1525, well before the Gobernador phase and the Pueblo Revolt. Contact between the Navajo and the Pueblos was clearly much earlier and of a manner much different from what was previously thought. The interaction that resulted in the presence of Pueblo-derived traits in Navajo culture was not the interaction of refugees passing traits and technologies to hosts. New models of this cultural process must be developed and explored.

*Acknowledgments.* We would like to thank R. Barker, who provided unpublished data and general advice concerning Navajo ceremonialism. Of course, any errors are the responsibility of the authors.

## IV CONCLUSION

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## Navajo Archaeology A Promising Past

David M. Brugge

The papers collected in this volume are a significant contribution to the ongoing process that we define as Navajo archaeology. It is important periodically to take stock of our endeavors, to try to determine whether we are making progress, and to assess the questions that might lead us onward. This volume is the fourth to present a collection of papers by workers in diverse areas and with diverse opinions on Navajo and Apachean archaeology and the most ambitious thus far.

The first, reporting on the protohistoric period in the Southwest generally, was based on a conference held at Arizona State University in Tempe in 1978 (D. R. Wilcox and Masse 1981). It included only three original papers and two of comments dealing with the Southern Athapaskans.

The second, again a collection aimed at the entire Southwest and covering the end of prehistory and beginnings of history, resulted from a conference sponsored by the New Mexico Archaeological Council and held in Albuquerque at the University of New Mexico in 1988 (Vierra and Gualtieri 1992). The section on Athapaskan research included six original papers, all but one addressing questions in Navajo archaeology, and one paper of comments. I had the

honor of being a commentator for both of these volumes.

The third reported on a symposium held at the Society for American Archaeology meeting in New Orleans in 1991. The defining criterion was geographic rather than temporal, with papers devoted to Archaic, Anasazi, and Navajo archaeology of the Upper San Juan Basin (L. S. Reed and Reed 1992a). The three papers on early Navajo archaeology were important contributions to our understanding of that subject, but no comment section or summary chapter was included.

The pace of progress continues to increase, with the years separating the various meetings decreasing from ten to three to two. During the past

decade and a half, a surge of site reports, monographs, and articles has appeared as well as writing dealing more generally with Southern Athapaskan prehistory. As this is written we await publication of the results of several additional field projects which may well require substantial changes in our views. The reports contained herein, covering as they do such a wide range of topics and regions, give us a more comprehensive view than have previous efforts, however, and this volume will remain a major source far into the future. I will deal with the papers in the order published and then will summarize my thoughts on the overall state of Navajo archaeology today.

I will not comment extensively on Towner and Dean's introductory chapter. The section on Navajo history to 1868 is a good, if necessarily brief, summary which provides essential background for readers not familiar with the broad outlines of Navajo history.

Their history of Navajo archaeology does omit a few projects in New Mexico which I believe merit inclusion. At Chaco Canyon, R. Gwinn Vivian's (1960) survey in the 1950s provided a valuable follow-up on work in the 1930s (Malcolm 1939). Both of these served as background for my own study of the historic period sites recorded during the Chaco Project of the 1970s (Hayes et al. 1988; Brugge 1986). While some of the earlier sites known in the Chaco/Chacra region are contemporary with Gobernador phase sites in the Dinétah, the settlement is less dense and the cultural complex less elaborate. As a community situated between the northern San Juan Navajos and the

southern bands around Mount Taylor, the Chaco region played an important role in uniting a dispersed population. The mesa-plains-canyon topography also allows observations regarding seasonal movements. My own work there provided archaeological data on activity areas within Navajo sites.

Towner and Dean's overview of the issues that have most concerned Navajo archaeological research again addresses the major themes: date and time of arrival in the Southwest, spread throughout their known range, adaptation to the natural and social environments of the Southwest, and the processes of culture change. I do have one point of disagreement here. Towner and Dean suggest that perhaps only two clans of Puebloan origin are known from ethnographic sources. Reichard (1928:16-19) lists nineteen Navajo clans deriving from Pueblos or from Pueblo clans, as well as indicating how Pueblo people might be incorporated into Navajo clans that derive from other origins. The significant question, in my mind, is not whether there has been Puebloan introgression, but when it took place, the rate of incorporation, and the conditions under which it took place. The ceramic evidence presented by Reed and Reed (this volume) suggests that immigration may have extended over a

longer period than once thought. In this regard, it is worth noting J. P. Wilson's summary (1985:113-20) of the turbulent nature of Spanish-Pueblo relations by 1650, well before the Pueblo Revolt.

Curtis Schaafsma, as one of the foremost proponents of the theory that the Navajo, or their Athapaskan ancestors, arrived very late in the Southwest in small numbers and spread very slowly to their historic limits, begins the collection with a paper questioning the identity of the sites in the La Plata Mine area and concluding that they are of Ute origin. He limits his evidence to "historical documents, ceramic technology, linguistic studies, and traditional histories," but gives detailed consideration only to the first two. Before reviewing his arguments, I wish to reiterate a point that I have made before, that when we deal with the remains of preliterate peoples, especially when there are no written records to provide contemporary identification of those remains, we are dealing with *cultural* phenomena, which in themselves can never give us direct evidence of the languages spoken by those who left the remains. This means that we can never be entirely certain as to the languages, although as data accumulate and we analyze the evidence more thoroughly, we will draw ever closer to estimates in which we can place some confidence. Schaafsma discounts Buckles's cautions (1988) regarding ethnic identifications as "extreme skepticism," but I view Buckles's approach a wise one. There has been speculation that the La Plata Mine sites are Ute for some time, and it is good to open up discussion of this issue.



A portion of Schaafsma's reasoning is based on the historical documentation of later times. Only two documents, both of a secondhand nature, are cited to support the contention that Navajos did not live north of the San Juan River in early contact times. These documents do place Utes north of the river, but they do not exclude Navajos. I do not interpret the significance of the documents in the same way Schaafsma does and cannot readily accept his suggestion that later Navajo presence north of the river was due to Navajo expansion northward rather than to efforts to retain access to lands from which they were being driven by Ute expansion. Either interpretation of the historical and traditional data is possible. Unless as yet unknown documents are found or new analyses reveal unexpected hidden truths, we can use these sources at best only to lend support to opinions based on other data.

There has so obviously been an exchange of cultural traits among Puebloans, Navajos, and Numics that we cannot rely solely on ethnographic data for the distant past. It is possible to work back from the known to the uncertain, studying sites known to have been occupied by immediate ancestors of present-day populations and sites identified in his-

torical documents, then comparing these to sites that are older still. For the Athapaskan and Numic peoples, unfortunately, few sites are located with precision in the early documents. Generalizations, estimates, and imprecision characterize the historical accounts, allowing widely varying views to be derived from the same materials. Rivers become especially fluid boundaries, so much so that not only the San Juan but also the Colorado, the Rio Grande, and the Gila have been described at times as Navajo boundaries. Neither the Rio Grande nor the Gila can be considered to have been literally a Navajo boundary, suggesting that chroniclers were sometimes poorly informed, were careless about accurate reporting, or, perhaps most likely, that they held somewhat different ideas as to what their words meant, perhaps considering that the divide between two major drainages was indicated by reference to a river alone.

Schaafsma's final position is that ceramics are the only real evidence for the ethnic affiliation of the La Plata sites and that this can be determined "only on the basis of vessel shape and minor texturing such as fingernail indentations." It is true that fingernail impressions appear on some Paiute sherds and possibly on some Ute sherds as well, while corncob striations are more frequent on eighteenth-century Navajo pottery, but other modes of surface finish are present even on Navajo sherds of the period between 1700 and 1750 when classic Dinétah Gray or Dinétah Utility was at its height of popularity (Brugge 1963). The differences between my description of the type and that by Carlson (1965) I can attribute to the fact that I was working

with sherds from many sites while Carlson dealt with complete vessels from a few sites, but we both recognized considerable variation within this and related types or varieties. Dittert's more limited descriptions (1958b) were cursory at best. The problem, however, is the identification of the ethnic affiliation of sherds dating up to two centuries or more before those described. As early as 1963 I suggested that older Navajo pottery would differ significantly from what then was called Dinétah Utility, listing possible changes:

It is not known how early the type called Dinétah Utility developed, although important factors in its development would have been a change from paddle-and-anvil construction to coil-and-scrape construction, the use of corncob scraping instead of various other forms of surface roughening and a modification of jar shapes. (1963:19)

I finally concluded, as the years went by and no earlier Navajo pottery was clearly identified, that either the Navajos did not produce pottery at an earlier date or that it was of limited importance in their culture at that time (Brugge 1982:285).

The imperatives of contract archaeology have made archaeologists look more closely at remains that they might have slighted in the past and led to the discovery of a variety of protohistoric plainware that now appears to fit my expectations to a degree. Whether this fit is sufficient to indicate that the makers were Navajos or some sort of proto-Navajo Athapaskans is still a matter of opinion. Although Schaafsma might seem to make a persuasive case for his views, the papers following his demonstrate that there are other aspects of the question that need to be considered.

Gary Brown brings his usual careful analytic methods to a broader problem, that of ethnic identity and interrelationships through time and across the landscape. He also delineates a unique set of identifiers for the Dinétah phase, some of ethnic significance and some of temporal import. In addition to the ceramic remains, he includes grooved shaft abraders; two-hand manos; a significant amount of maize; forked-pole hogans with polygonal floors, earth covering, and enclosed entryways; formal site layout with refuse areas, ash dumps, hearth-centered activity areas south and east of the hogan, and front-center interior hearths. In ethnic terms, insofar as we can discern from the limited information available from Ute archaeology, Ute sites differ in ceramic type, expedient construction of wickiups, lack of activity areas, presence of Shoshonean knives, absence of grooved shaft abraders, far less evidence of maize, and far fewer two-hand manos.

We do not know how far back the Ute complex goes,

and it is very imperfectly understood. The Navajo complex extends back to at least A.D. 1500 in the northern San Juan region and shows continuity in its changes into the early Gobernador phase for which Brown suggests a mid-seventeenth-century beginning, which in turn evolves into the late Gobernador phase in the late seventeenth century with the addition of pueblitos. I would add that, if a phase system is to be used, emergence of the Cabezon phase in the late eighteenth century is clearly derived from the late Gobernador phase and that continuity into the traditional Navajo lifeway is easily observed in nineteenth-century sites, all with significant changes with the growth of pastoralism and fluctuating defensive needs, but with notable continuity in ceramics, architecture, and site layout.

The region between the Pine River and the La Plata has long been a blank as far as the protohistoric centuries are concerned. Jerry Fetterman's paper reports on the dating of sites east of the Animas River in New Mexico, helping to fill that gap for the seventeenth century. The La Plata sites are no longer separated from the Navajo sites to the east by so dramatic a distance in either time or space. While the data to show that the sites dated are indeed Navajo are not presented in any detail, the proxim-

ity of these sites to the Pine River Navajo sites and other data, such as the apparent substantial nature of the structures and the fact that they yielded numerous datable wood specimens, suggest Navajo as most likely, while the full report on the project supports his identification much more strongly (Honeycutt and Fetterman 1994).

The purpose of Fetterman's paper is to present an extremely clear demonstration of the hazards of uncritical reliance on radiocarbon dates, based on an ideal series of tree-ring dates which confirm seventeenth-century occupation while showing how these dates vary from the radiocarbon dates from the same sites. Three sites in particular, LA 16209, LA 72747, and LA 72767, produced exceptionally convincing clusters in the 1600s. The importance of a series of clustered dates is also made manifest by his data. This is an important contribution to the methodology for establishing reliable dates and to our knowledge of Navajo distributions as well.

Paul Reed and Lori Stephens Reed raise a new question: just when did Gobernador Polychrome begin to be made? The history of past writings on the type is reviewed and the importance of the question emphasized. Gobernador Polychrome has become the major indicator for the Gobernador phase. Here the weakness of the phase concept in historic-period archaeology becomes apparent. The authors suggest that the Gobernador phase needs to be revised, although I would prefer to dispense with the phase concept,

which has become increasingly clumsy in Navajo archaeology (Towner and Dean, this volume).

Whatever the taxonomic implications, the implications for culture history are much more profound, relating as the type does to Navajo-Puebloan interaction. The date of beginning must inevitably be significant in terms of relations between the two peoples, even if we can perceive only dimly what that significance might be.

The evidence for a seventeenth-century beginning for Gobernador Polychrome is quite strong. Although I remain uneasy with radiocarbon dates, the tree-ring dates from LA 16209 and the association with Puebloan glazewares at LA 80910 give ample support to an early origin for the type. The key site is LA 16209, where two hogans built in the early 1620s have specific association with sherds of Gobernador Polychrome. The length of occupation at the site is not known, but the author's assignment of 1630 as the earliest date now well supported is a reasonable and conservative estimate. Their demonstration that sites lacking Gobernador Polychrome are found even from the eighteenth century is not surprising since it was the great likelihood that this might be the case that led to caution in crediting the Dinétah phase.

The implications of this early date may not be those that the authors suggest, however. We know that there was interaction between Puebloans and Apacheans, including in all probability the Apaches de Nabaxu, from the beginning of Spanish contact and earlier. Gobernador Polychrome is clearly a Southwestern pottery type, lacking any hint of exotic origins. It is more closely allied with Puebloan types than it is with the wares of non-Puebloan peoples. Its suggested beginning still postdates initial contact with Europeans among the Pueblos and almost certainly is later than the establishment of the New Mexican colony. That it is in no way related to the overwhelming events of contact, conquest, and colonization in the neighboring Pueblo world seems to me quite improbable. The issues that remain concern themselves with what those relations were and how they affected the lives of the Indian people.

Timothy M. Kearns gives us a well-worked-out description of Navajo lithic technology as presently known. The La Plata sites fit easily into a complex that also includes sites in the Navajo Reservoir, in the Largo-Gobernador Canyon area, on Gallegos Mesa, and at Chaco Canyon. Similarly well-described and detailed Ute data are lacking, but at least one difference is readily apparent, the absence of Shoshonean knives in the Navajo inventory. Only one knife that “strongly resembles” the Shoshonean style is reported from the scores of Navajo sites included in the reports surveyed by Kearns.

Ron Towner presents an expanded series of tree-ring



dates from pueblitos, a data set that provides a much firmer base for temporal placement of the pueblito complex. It will prove useful for many questions that have been and will be raised about this architectural form and its relationships to various aspects of Navajo history and archaeology. He suggests a radical revision of our view of Navajo culture history on the basis of this more detailed chronological picture, one that is challenging and stimulating, but one that I feel fails to take full advantage of ethnographic and ethnohistorical knowledge.

I can agree with his data because they so nearly parallel what I have long believed on the basis of the Navajo Land Claim research in several ways, including the temporal trends in pueblito construction, that most of the pueblitos were built by people who were Navajos (even if of Pueblo origin or part-Pueblo ancestry) and that the defensive aspects of the pueblitos were designed for protection from Indian raiders, especially, but probably not exclusively, from Utes and Comanches. Like others before me, I initially attributed the building of the pueblitos to the refugees themselves (1963:21). One point I did recognize at an early date was that the pueblitos were not adaptive in wars with whites (1963:23). After the Reconquest and

the collapse of the Revolt of 1696, when such major strongholds as the Black Mesa on the Rio Grande and Astialakwa had fallen, the Pueblos must have been well aware that fortifications were of little use when confronted with European-style armies. That the stage was set for flight to Navajo country by long-established trade alliance relationships is ably demonstrated by L. S. Reed and Reed (1992b). I have found evidence of similar relationships based on military alliances in the historic record (1969).

The one pueblito that we can feel some confidence in attributing to Pueblo refugees, Tapacito Ruin, is very different from all others (Towner and Dean 1992). It has thicker walls, squarer corners, and dates about the time that Vargas overcame the Tewas on Black Mesa. Most significantly, it is not designed with defense as a major criterion. The presence of collapsed rooms added to the sides, probably in the thinner masonry of the later pueblitos, gives some evidence of extended use, but its purpose seems to have been primarily residential, not defensive. It does tie into a small line-of-sight cluster with several other pueblitos in its neighborhood (Jacobson et al. 1992:Figures 8 and 14, Appendices 2 and 3), which would have allowed for early evacuation if enemies were seen approaching. It may well have provided a prototype for the later defensive pueblitos.

Still, refugee presence need not be signaled by the immediate construction of numerous pueblitos. Concealment, flight, and dispersal, the tactics that had long served the Navajos and Apaches in their resistance to Spanish conquest, would have been a first choice for

defense as long as the Spanish wars continued. Once those wars ended, however, the presence of naturalized Navajos who still remembered something of pueblo building practices or of their descendants who felt some kin ties to Pueblo ways could, and probably did, lead to construction of fortresses to defend against Indian enemies.

Far better evidence of the refugee influx exists in the origins of Navajo clans. Reichard (1928:11-19) identifies seventeen clans as originating with Pueblos or Pueblo clans, plus listing two others of probable Pueblo origin. I would add another five or six to her list, but would discount one that she includes. In any case, about a third of all Navajo clans claim Pueblo origins and some of these clans are quite large (Reichard 1928:22-25; Williams 1970:Table 6). One further indication, of a demographic nature, suggests that the Navajo have incorporated a large number of people from outside sources (Brugge 1993a); the fact is that they began population recovery at an early date after contact relative to other tribes and have maintained fairly steady population growth since (Brugge 1994).

I believe that the conflict between Towner's interpretation and my views arises from two sources. First, I do not think all Puebloan infusion

need be the result of the Reconquest. I do believe that most was due to Pueblo people fleeing Spanish oppression, but significant numbers may have arrived during the conquest itself and as a result of failed rebellions, or even to escape punishment for acts short of attempts to drive out the invaders. In addition, captives may have been able to exert considerable influence in some cases (Brugge 1985:137-38, 171-75; 1993b:282). A distinction needs to be made between the kinds of analyses that are done so as not to equate dissimilar phenomena. The acceptance of outsiders within Navajo society was an adaptive process without doubt, but it was dependent on historic events, many of which were external to Navajo affairs. It would aid in the transmission of cultural knowledge, but people joining the Navajo neither forgot what they had learned in their natal societies nor necessarily began promptly to recreate their native lifeways in their new homes, much less to instruct Navajos in those lifeways. The knowledge and skills that they brought with them would be available to teach to their children, however, and accessible to recall should they be thought useful at any time during their lives.

When a potential for a new defensive strategy became apparent among the Navajo in the second decade of the eighteenth century, some of the techniques of more sedentary societies, both Puebloan and Hispanic, were found to be useful. The presence of people of Pueblo extraction with knowledge of these techniques would have certainly facilitated the adaptations that took place. That knowledge remained largely dormant for two decades does not mean that it could not be called

upon when it became functional. It is possible to integrate ethnohistorical analysis and functional analysis, but it must be kept in mind which is which and the ways in which the two approaches to knowing interrelate must be recognized (Brugge 1993b).

In this regard, if I may coin a term, I think that Towner has succumbed to a way of thinking that I might label “disciplinocentric,” an awkward term, but one which clearly expresses its own meaning. I was, perhaps even a bit arrogantly, disdainful of historians in my early days of research into Navajo anthropology. I continue to be aware of the limits of their discipline, but I have also learned to respect its strengths and contributions, a learning that was accompanied by a growing awareness of the limitations of our own discipline. While my early biases contrasted the broad disciplines of anthropology and history, I find Towner being equally distrustful of the subdisciplines of anthropology other than his own, ethnology, linguistics, and physical anthropology. All are important in our efforts to learn more about the past of any people, but especially so when dealing with protohistoric times. In short, I see his conclusion regarding

the refugee hypothesis as utilizing a processual or functional analysis to propose a historical conclusion without taking into account fully what we know beyond what archaeology tells us.

This does not discount Towner's assertion that we can "no longer rely on a simple model of immigration." The cultural data alone are sufficient to indicate that Navajo acceptance of Puebloan and Hispanic traits followed circuitous paths, and the chronological refinements of the past few years have made this clearer than ever. We need, however, to avoid simple either/or dichotomies as explanations for complex human events. Navajo cultural changes must have involved immigration, instruction, diffusion, and even local inspiration, sometimes under the pressures of necessity, at other times perhaps more in response to opportunity.

Towner's contribution to the dating of events is an enviable accomplishment, one that puts us all in his debt. My critique is not meant to be an attack on his conclusions in defense of my own, for it has caused me to rethink many aspects of my earlier work and to recognize new questions that can at the least be put forward as hypotheses and at best perhaps help better explain the Navajo past.

Dennis Gilpin presents a comprehensive survey of what is known about Navajo archaeology west of the Chuska Mountains, roughly from the tops of the mountains to Black Mesa and the Moqui Buttes. Relatively little attention has been given to Navajo archaeology in the central part of Navajo country, and this is especially true west of the state line. He finds a fair representation

of eighteenth-century remains, but only historical evidence of Navajo presence in earlier times. The documents are so suggestive of seventeenth- and even sixteenth-century occupation that more intensive search is warranted, for if sites are as unimpressive as are sites of earlier eras in New Mexico, which archaeologists ignored until required to investigate them by the exigencies of impending destruction and the insistence of the Navajo Nation, they probably remain unrecognized even in areas where some survey has been accomplished. The Navajo Land Claim surveys were aimed at more recent sites. Even the surveys of the Black Mesa project failed to identify such sites. Gilpin's overview may stimulate a more serious search for Navajo sites of all periods, and is a welcome contribution that may help overcome the reluctance of specialists in Archaic and Anasazi studies to take time to look more closely at the very sparse scatters of cultural debris that characterize these early sites.

Richard M. Begay and Alexandra Roberts carry the story to the west in their consideration of Navajo ties to the Grand Canyon. Historical accounts indicate Navajo presence as far back as the late seventeenth century, while some archaeological data suggest occupation in the late eigh-

teenth century. Both lines of evidence have received little attention among most archaeologists working in the area, however, and greater awareness of the question is called for. Begay and Roberts raise a new issue, one that heretofore has not had previous notice in the literature. This is Navajo tradition asserting direct links to Anasazi ancestry through the incorporation of a small surviving group of the Anasazi themselves, as opposed to incorporation of their historic Pueblo descendants. This refers, presumably, to a band or community that did not participate fully in the Pueblo IV developments leading to modern Pueblo cultures. Based on oral accounts only recently recorded, this claim is sure to be met with strong skepticism, but it is a Navajo view of the past and deserves testing. Some of the origin stories recorded by Washington Matthews (1897:140-44) may well relate to this tradition. The questions that this tradition raises may connect in some way to the suggestions recently made that Archaic bands may have survived in the Anasazi hinterland well into the present era, people who may well have been groups Navajo tradition identifies as those who escaped the monsters of antiquity. Verification by archaeological data may be dependent on fortuitous discoveries. The missing years of early Navajo occupation as such are accessible through suitable research strategies as is shown by the La Plata Mine sites, but the evidence, if it exists, is not only inconspicuous and fragile but also probably very sparsely distributed.

James Copeland and Hugh Rogers return us to the classic Dinétah for a look at that frequently neglected



site type, rock art. They describe three aspects of the Navajo period rock art that they feel are significant: certain panels that have more in common with late Pueblo kiva murals than with the Gobernador Representational Style as defined by Polly Schaafsma (1980), the patterning of the distribution of Navajo rock art both in terms of location on the landscape and in terms of clustering of motifs, and, finally, continuities in technique between the depiction of ceremonial imagery in rock art and in dry painting.

The first they interpret as indicative of a pre-Revolt date and of Puebloan presence in the Dinétah. The later inference is almost certainly correct. The problem of dating the rock art as pre-Revolt on the basis of stylistic similarities is less clear, although a relatively early date is difficult to dispute. It does, in fact, appeal to me as being congruent with my own views, but our dating of both kiva murals and of rock art so lacks precision that I am reluctant to unhesitatingly credit it with relation to a specific historic event. As a hypothesis it may be subject to testing, however. Just as Tapacito Ruin is a very Puebloan structure and appears at the time of the Reconquest, while Navajo style pueblitos became popular only

about a generation later, so it might be that a Puebloan art style briefly precedes the development of a distinctly Navajo style in somewhat the same time frame. I find it difficult to choose between these alternatives on the basis of present knowledge.

The second, that of geographic selectivity in the placement of sacred motifs and the clustering of different motifs on the panels within different canyons, is interpreted as indicative of the ritual, or at least religious, significance of the images and perhaps of the kinds of ceremonies performed in those canyons, if not the places of origin of those ceremonies. Again, there can be little disagreement with the first conclusion insofar as Navajos are concerned today, although whether the artists intended this art to be utilized in just the way it now is may be an open question. Association with certain ceremonies is also a logical conclusion on the basis of the clustering of motifs. Origin of ceremonies within these canyons is less likely in view of the locations cited in most of the traditional accounts of the beginning of each, but that practitioners of the ceremonies resided in the canyons seems an altogether safe assumption. Navajo singers still utilize sacred spots close to their homes as shrines where they make offerings and pray to the Holy People, although they apparently no longer create imagery at these places. If the ceremonies as practiced in the Dinétah had curing as a major function in the manner of ceremonies practiced today, they probably often took place at the homes of the patients, not at the singers' homes. This is, of course, a conclusion that requires an intervening inference for which we have no direct evidence. We

very much need further work to delineate more completely the distributions of motifs and this paper may help stimulate such work.

The third proposal, that there is continuity in technique between some rock art panels and dry painting, I can only regard as an inspired insight, one that appears so obvious once it is mentioned that I can only wonder why we did not notice it earlier. It does appear to be most striking at only a few sites, however. A test of its general applicability might be the examination of sites where the figures are pictographs to determine whether, or how often, clothing of figures is indicated by overpainting of depictions of anatomy. I would anticipate that some, but not all, pictographs of Ye'i might show evidence of this method.

Two further analogies with sand painting technique might be made. The smoothing of the rock surface can be seen as comparable to the smoothing of the sand upon which a dry painting is to be produced. Finally, the use of scrapings from rock art for medicine today is certainly analogous to the use of sand from the figures in a dry painting for application to the body of the patient.

As pointed out by Copeland and Rogers, the renewal of pictographs is more akin to the repainting of ritual paraphernalia, but it can also be noted that each time a dry painting is to be used it must be repainted, not over an old painting, but over the pattern retained in the mind's eye of the singer. I do not know just how far we can safely apply this analogy, but it does add strong new evidence of the close relationship between the Gobernador Representational Style and modern Navajo dry painting.

The paper by Charles W. Wheeler, Scott Wilcox, and David Ayers presents to a wider audience long-awaited descriptions of the ceremonial features at the Effigy site, LA 78784, and at the Cross Hogan site, LA 78481. The ritual features are of exceptional interest, and interpretation of their significance will doubtless be a subject for discussion for years to come.

The Cross Hogan site is an example of an early form of dry painting in which the design, or a portion of it, was first excavated into the earthen floor of the hogan and the excavation filled with pigment. The design is a white equal-armed cross, but traces of other pigments suggested that the complete figure may have been composed of layers of color, including pink, yellow-red, gray or brown, and black, colors still used in modern dry paintings. The painting had apparently been covered over by clean soil, remaining concealed beneath the floor of a forked-pole hogan which had later burned. It was located west of a front-center hearth, the normal location for a dry painting in most ceremonies today. The hogan was relatively large, a

possible indication that it was built especially for the performance of a ceremony requiring large dry paintings, accommodation of many people, or both. Radiocarbon dates suggest a sixteenth- or seventeenth-century date, and late Rio Grande Glaze sherds associated with the site would support an early date.

The authors state that the burning of the hogan was intentional and imply that it was burned very shortly after the cross was made. How soon the structure burned and whether the setting of the fire was an intentional act I find difficult to judge on the basis of the data presented. The buried cross could well have existed under the floor of the hogan for some time after the end of the ceremony for which it was made, especially if it were intended to perform a blessing or protective role for the structure.

The hypothesis put forward was that the cross is an example of the performance of witchcraft. I have very serious doubts that this is the case. Equal-armed crosses are common symbols in Navajo ritual (Reichard 1950; Wyman 1983), representing the four directions, being frequent organizing patterns for dry paintings, and appearing as symbols of hearths, wood, stars, thought, protection, and other physical objects and abstract concepts. They are used in Blessingway dry paintings (Wyman 1970),

where wholly beneficent purposes motivate the ritual, in many curing ceremonies, and in marriages, dedicatory ritual for structures and shrines, and as prayers on star ceilings. A cross remains buried beneath a rock trail shrine. While this cross is composed of pollen or corn meal, the situation is not unlike that of the cross found in the burned hogan, and it is not unlikely that similar thinking was involved in both cases.

I should add that if the hogan was purposely burned at the conclusion of the ceremony for which the cross was produced, this may well have been because the patient in the ceremony died. It need not be indicative of witchcraft any more than the cross itself. Unfortunately we know so little about Navajo religious thought some three to five centuries ago that we can easily err if we try to be overly precise in interpreting the mute remains that archaeology provides us. The simple design recovered at the Cross Hogan site is ambiguous at best as to the intent behind its production. We do not even know whether the curing of illness was so major a theme prior to the advent of Old World epidemic disease in their country.

The Effigy site is a very different matter. A moderately large stone effigy of anthropomorphic form and with characteristics suggesting representation of a supernatural being, either a Kachina or a Ye'i, the Navajo version of the Puebloan Kachinas, was found buried face-down beneath the floor of a structure which had burned subsequent to the burial. Significant quantities of pollen from plants having religious use in

Navajo tradition, cattails, maize, and bee plant, clearly indicate that the disposition of the effigy was done in a ritual manner.

The effigy shows only superficial similarity to Pueblo effigies found archaeologically, such as the "idols" from Pecos (Kidder 1932:86-91). It is, however, clearly in the Southwestern artistic tradition with its tabular shape, masklike face, and painted decoration. The structure in which it was buried had suffered considerable loss prior to discovery and excavation. While identified as a domestic hogan, its exact nature is not clear. Again the authors postulate that the structure was deliberately burned. Dating is quite uncertain. The two radiocarbon dates allow a great deal of room for speculation, and the only pottery associated was Dinétah Gray.

This find is also interpreted as evidence of the practice of witchcraft. Alternative hypotheses are not considered. I am again very hesitant to view the site as evidence of witchcraft per se, but do think it is suggestive of a *belief* in witchcraft, or at least that supernatural power can bring harm. Here the problem of what defines witchcraft becomes significant. In Navajo belief, as in most cultures that hold that humans can manipulate supernatural forces in ways damaging to other people, use of power for malevolent purposes is witchcraft when directed against fellow tribespeo-

pie (Kluckhohn 1944; Marwick 1970). The authors consider similar usages directed against aliens to be witchcraft. Navajos do not, at least not traditionally. Witchcraft is, by definition, immoral, a heinous crime practiced in secret and traditionally punishable by death. War ritual is done in a corporate, if not communal, context with the full approbation of society. If the burial of this effigy was war magic, it does not constitute witchcraft, nor would burial because it was thought by those who buried it to have been used for witchcraft.

There is at least one other alternative that comes to mind to explain the ritual disposal of the effigy. This is that it may have been paraphernalia for a ceremony which was perceived not to be efficacious, or even in some way offensive to the Holy People, bringing retribution rather than help. Burial of a chant symbol of this type may have been considered no more than a rejection of a ceremony, very possibly a result of the epidemic diseases that swept the Indian populations or simply as a result of the death of the practitioner of the ceremony. A belief that human actions can bring harm through supernatural means might serve to explain the circumstances of the find, but this would not be evidence of the *practice* of witchcraft. As the figure represents a supernatural personage, not an “earth-surface person,” burial can hardly be interpreted to be intended to harm a living human. It may, at most, indicate a *belief* in witchcraft.

Others are likely to find different explanations, either by analogy with traditional Navajo culture or from



reasoning based on general anthropological understanding of tribal religions. I am sure that I have not exhausted the hypotheses that these two sites might generate. Tests of any hypotheses are far more difficult to conceive, unfortunately. We will probably never know with any certainty the exact circumstances that led to the production of the cross or the burial of the effigy, nor even be able to date them well enough to relate them to the impacts of contact in a meaningful way, but they do indicate that a rich ceremonial tradition with deep Southwestern roots was well developed among the Navajos.

In summary, I can safely conclude that Navajo archaeological research is alive and well, an exciting field of study that can provide both new insights into Navajo culture history and contributions to general anthropological theory. As I have noted above, the research reported here stimulated my own thinking about Navajo life during the protohistoric period. I would like to add a few final thoughts that others may find useful in future research.

From the beginnings of their history as Southwesterners the Navajo occupied an ecological regime not greatly different from that of their Pueblo neighbors, one, in fact, that had once sustained a major Pueblo

population. They were growing domesticated plants at a relatively early date, the same plants as those cultivated by the Pueblos. It is significant that the native crops still occupy a prominent place in Navajo religious symbolism and practice, maize having an importance that sheep have never attained and that even the horse does not match. Exchange of the products of the hunt and pastoralism for agricultural products have long characterized Navajo-Pueblo trade, but this has been based on differing degrees of economic specialization rather than on the exploitation of totally different habitats as was the case in trade between the Plains Apaches and the Pueblos.

The beginnings of the cultivation of crops would certainly have required ritual as well as practical knowledge, and this need would increase as dependence on agriculture grew. In addition to any economic pressures to accept and then increase plantings, agricultural ritual was probably important in giving people assurance that their labor in clearing fields, planting, and weeding might be rewarded at harvest time.

Most characteristic of modern Navajo ritual is its strong focus on curing. On one level this has been seen as a reflection of the emphasis on the individual in Navajo society as opposed to the pervasive community orientation of Pueblo society. Without denying the validity of this interpretation, a historical imperative can also be recognized. The horrors of the new diseases brought by Europeans would impel the people to seek new remedies. Those that appeared to provide some

protection from, or alleviation of, the trauma of Old World diseases would not fail to gain adherents. If these diseases spread to the Navajo even in advance of the newcomers, this process may have begun at a very early date. It probably culminated in the eighteenth century when recovery from population losses became evident, by which time not only Pueblo religion but also Christianity could have supplied intellectual stimulation that might fuel revelation, innovation, and teaching.

Wars are always games of chance in which the human factor plays a role. The odds in terms of technology, strategy, tactics, organization, and ideology may heavily favor one side, but on occasion the side not favored may well prevail. Whichever side wins, victory will be attributed to supernatural powers as much as to the abilities of the combatants, and ritual used on such occasions will see repeated use and even elaboration or intensification. Wars are often difficult to discern in archaeological remains. We know that warfare was rampant during the age of exploration and throughout the colonial period, but direct evidence of battle is remarkably rare. We must rely more on history than on archaeology for our knowledge of the identities of opponents and the level of hostilities, but when the

trends in warfare and the nature of threats are known, archaeology can help us explain the impact on people's lives in terms of settlement patterns, defensive precautions, weaponry, economic adaptations, mobility, and a host of other factors.

The massive adaptations that the Navajo had to make, first to the environment and peoples of the Southwest, then to the effects of contacts with Old World peoples, have left remarkably little that can be traced to their Northern Athapaskan ancestors aside from language and basic cultural themes such as individualism, fear of the dead, high status for women, pragmatic and optimistic outlook, and, as a corollary to the last, flexibility in adapting to new situations. Many, but certainly not all, of the externals through which these themes are expressed in "traditional" Navajo culture are derived from older Southwestern cultures or even from European cultures, particularly from Hispanic culture as it has developed in New Mexico. Navajo culture history involves the discovery of when, where, how, and why these changes came about, as well as understanding the underlying continuities that organized the diverse traits and complexes into a cohesive whole that could withstand the centrifugal forces generated by territorial expansion.

Research into this era of the Navajo past has the potential not only to provide a more accurate history of the Navajo Nation but also to enhance our understanding of culture change, intercultural relations (including war and peace), demographic trends, effects of migration, and immigration and many other aspects

of human existence, as well as, possibly, how better to identify some of these phenomena in fully prehistoric contexts where historic sources are entirely lacking and ethnographic analogy far more tenuous than it is in interpreting more recent centuries.

The future looks bright for Navajo archaeological studies. There will be continuing controversy, some perhaps more bitter than is justified, but even that should be welcomed, for from the heat of disputation may be forged conclusions that are both stronger and more flexible. In closing, I want especially to welcome Richard Begay as the first Navajo to take part in these four sessions on Navajo archaeology, with hopes that he will participate in future events of this kind and that he will have pioneered a path that others may follow.

## APPENDIX: LEGENDS FOR TREE-RING DATES

### CUTTING DATES

G = Galleries present

B = Bark Present

L = Characteristic surface patination

c = Continuous outermost ring around full circumference of a specimen

r = Continuous outermost ring around circumference of a partial specimen

v = A subjective judgment that the last ring on a specimen is within a very few years of being a cutting date

### NONCUTTING DATES

vv = Outside rings missing

+= One or more rings missing near the outside of the specimen

++ = A ring count is necessary because the specimen does not date beyond a certain point or year

### INSIDE SYMBOLS

p = Pith ring present

±p = Near pith

± = Pith ring not present, ring count

## OTHER SYMBOLS

Inc = Terminal ring is incomplete

Comp = Terminal ring is complete

The symbols L, G, and B may be used in any combination or with any other symbols except v and vv. The r and c symbols are mutually exclusive, but may be used with L, G, B, +, and ++. The v and vv are also mutually exclusive and may be used with the + and ++. The + and ++ are mutually exclusive, but may be used with all other symbols. The Inc and Comp describe the last ring on a specimen and may be used with all symbols. (From Robinson et al. 1974:4-5)



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